

# FM 71-3

## THE ARMORED AND MECHANIZED INFANTRY BRIGADE

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**FM 71-3**

Field Manual  
No. 71-3

Headquarters  
Department of the Army

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## THE ARMORED AND MECHANIZED INFANTRY BRIGADE

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## Preface

FM 71-3 describes the employment of the armored and mechanized infantry brigade through full dimension operations as outlined in FM 100-5. This manual is intended to assist brigade commanders, their staffs, and subordinate commanders in planning and conducting brigade operations. Familiarity with FM 100-5 and FM 71-100 is essential to use this manual.

Incorporated in this manual are tactics, techniques, and procedures (TTP) for the tactical employment of the armored and mechanized brigade and tactical standing operating procedures (TSOP). FM 71-3 is the foundation for the continuing development of TTPs. The TSOP is generic and is intended for use by any armored and mechanized infantry brigade.

The proponent of this publication is TRADOC. Send comments and recommendations on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to Commandant, USAARMS, ATSB-SBD-D, Fort Knox, Kentucky 40121-5200.

The term "armored" applies to armor and mechanized infantry forces where employed.

Unless otherwise stated, masculine nouns and pronouns do not refer exclusively to men.

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# FM 71-3

## The Armored and Mechanized Infantry Brigade

### CHAPTER 1

### THE BRIGADE

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Section I.	<a href="#">Mission, Capabilities, and Limitations</a>
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Armored and mechanized brigades are organized to fight successful engagements in conventional and various operations other than war (OOTW) activities. They are subordinate commands of a division and corps and perform major tactical operations as part of a division or corps operation. Regardless of the threat environment, the key to victory is to impose our will on the enemy by forcing him to conform to the brigade's desired end state. This requires the brigade commander and staff to identify the decisive point(s) and synchronize the efforts of subordinate maneuver battalions, combat support (CS), combat service support (CSS), and available higher headquarters' combat power in support of the brigade effort.

## SECTION I. MISSION, CAPABILITIES, AND LIMITATIONS

### MISSION

The primary mission of the brigade is to deploy on short notice and destroy, capture, or repel enemy forces, using maneuver and shock effect. Brigades also conduct various OOTW activities, independently or as part of a joint or multinational headquarters in peacetime and conflict environments.

### CAPABILITIES AND LIMITATIONS

The brigade has special capabilities and limitations. Table 1-1 shows the capabilities and limitations of the brigade.

Brigade Capabilities	Brigade Limitations



Conducts sustained combat operations with proper augmentation.	Mobility and firepower are limited by -- <ul style="list-style-type: none"> <li>● Urban areas.</li> <li>● Dense jungles and forces.</li> <li>● Very steep and rugged terrain.</li> <li>● Significant water obstacles.</li> </ul>
Accomplishes rapid movement and deep penetrations.	Strategic mobility is limited by heavy equipment.
Exploits success and pursues a defeated enemy as part of a larger formation.	Consumption of classes III, V, and IX supplies is extremely high.
Conducts security operations for a larger force.	
Conducts defensive, retrograde, and other operations.	
Conducts offensive operations.	
Conducts operations with light and special operations forces.	
Conducts OOTW.	
Deploys rapidly onto pre-positioned equipment.	

Table 1-1. Brigade capabilities and limitations.

## SECTION II. ORGANIZATION AND FUNCTIONS

### BRIGADES

Brigades are organized as follows:

- As a combination of armored and mechanized infantry battalions.
- Often times composed with an aviation battalion or task force.
- Occasionally composed of a light infantry battalion, and other supporting units grouped under the command of a brigade headquarters.
- CS and CSS units are task organized to the brigade as necessary.
- Brigades normally operate as part of a division or corps.

The functions of brigades are to:

- Perform tactical tasks under the command of a division, corps, or a joint task force headquarters.
- Participate in division or corps operations according to the principles and concepts in FM 71-100 and FM 100-15.
- Task organize as directed.

The only permanent unit assigned to a brigade is its headquarters and headquarters company (HHC). For an example of a divisional brigade task organized, see Figure 1-2.

## SEPARATE BRIGADES

Separate brigades normally conduct operations under corps command, and are organized to provide their own support. The enhanced brigades of the Army National Guard are separate brigades. Their only enhancement is in an authorized over structure in personnel. These brigades have a formal training association with corps and divisions to further enhance their training readiness. Units organic to the separate brigade include:

- A brigade HHC to provide command and control.
- Limited CS assets to include military police (MP), chemical, and air defense elements.
- Armored and mechanized infantry battalions.
- An armored cavalry troop.
- An engineer battalion.
- A military intelligence (MI) company.
- A support battalion of several support units with the added ability to link directly with corps support command for augmentation.
- A FA battalion to provide fire support (FS).

Additional combat, CS, and CSS units may be attached to a separate brigade as required by the brigade's mission and operating circumstances. The separate brigade may be attached to a division (less support), but is usually controlled by the corps.

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## SECTION III. ARMY OPERATIONS

Army operations doctrine describes our approach to generating and applying combat power at the operational and tactical levels. It is based on securing or retaining the initiative and exercising it aggressively to accomplish the mission. Brigade commanders and staffs must understand the brigade's mission in relationship to the operational plan (OPLAN) as they fight engagements and participate in battles as part of the tactical battlefield. It consists of the brigade's area of operations (AO), battle space, and organization of the battlefield (deep, close, and rear). Deep and rear operations are essential to winning close operations. The brigade commander develops his intent and accepts risks to achieve decisive results. He secures the initiative and conducts operations to impose his will on the enemy. The commander maneuvers the brigade to position strength against weakness, throw the enemy off balance, and synchronize combat power to complete the enemy's defeat or destruction.

The brigade commander must understand the intent of the division commander and the corps commander to properly employ his forces. Additionally, the brigade commanders intent must be understood by his subordinates two levels down. Brigade tactics emphasize the use of fire and maneuver to destroy, delay, or disrupt enemy forces. Commanders and staffs must integrate and synchronize a variety of functions to generate overwhelming combat power at the decisive point(s). While this is critical during war, it is equally important in all environments.

The brigade commander sets the conditions for success. He then uses all of his precision organic and supporting systems at maximum capability to meet these conditions. Maneuver,

then, is employed to decisively defeat the enemy with minimum risk to his soldiers.

## **ARMY OPERATION TENETS**

The tenets of Army operations apply throughout the full range of military operations. Success on the battlefield, or during OOTW, depends on the brigade's ability to fight in accordance with (IAW) the five basic tenets of Army operations:

- Initiative.
- Depth.
- Agility.
- Synchronization.
- Versatility.

### **Initiative**

Initiative is the ability to set or change the terms of battle by action. The armored force is the only force with the mobility, lethality, shock effect, survivability, agility, and staying power in all weather conditions and climates capable of seizing and exploiting the initiative. Initiative implies an offensive spirit when conducting an operation. To do this, the brigade commander trains subordinates to take risks and to be bold, innovative, and aggressive. By understanding the intent of the next two higher commanders, the brigade commander may confidently operate with mission-type orders and exploit success. The brigade commander sets the terms of battle by

- Conducting an estimate of the situation to quickly gather the essentials of the tactical situation.
- Implementing a decision-making process that rapidly provides clear, concise orders to subordinate battalion commanders and staffs.
- Incorporating intelligence preparation of the battlefield (IPB) to support the decision-making process and the construction of the decision support template (DST). IPB helps refine the priority information requirements (PIR).
- Designing tactical plans that provide a reserve force poised to strike the enemy in depth, conduct counterattacks, and occupy flank or positions in depth.
- Conducting quick decision making from existing combat orders and issuing fragmentary orders (FRAGO) based on common operational procedures and control measures to adjust to changing situations and to exploit opportunities.

In the future, automated command and control systems will provide commanders with the ability to see their forces in relation to the enemy. This information, and a clear understanding of the higher commander's intent, will allow commanders to rapidly identify and exploit tactical opportunities.

### **Depth**

Depth is the extension of operations in time, space, and resources. Brigade commanders and staffs must forecast and anticipate events so the enemy is attacked simultaneously throughout the entire depth of the battlefield. The brigade commander uses depth by:

- Synchronizing combat and CS assets to isolate enemy formations and to deny the enemy commander an opportunity to generate combat power.
- Developing comprehensive plans for the security of the brigade rear area against Level I, II, and III threats.
- Employing formations that enhance depth, security, and agility.
- Aggressively employing internal reconnaissance and security assets.
- Attacking the enemy beyond the forward edge of the battle area (FEBA) with indirect fires, close air support (CAS), electronic warfare (EW), and attack helicopters.
- Developing a logistics plan to support brigade operations.

Automated command and control systems and CS assets enhance the maneuver brigade's ability to attack enemy forces with precision and in depth. The all-source analysis system (ASAS) provides maneuver commanders with accurate information on the enemy that can be used to plan maneuver and fires. CS systems like the M109A6 Paladin and enhanced mortars provide the commander with the ability to synchronize and maintain sustained accurate fires for deep and close targets simultaneously.

## Agility

Agility is the ability of friendly forces to react faster than the enemy and is a prerequisite for seizing and holding the initiative. Agility requires flexible organizations and quick-minded, flexible leaders who can act faster than the enemy to retain the initiative. At brigade level this means:

- Defining responsibilities among the tactical command post (TAC CP), the main CP, and the rear CP to streamline command and control procedures that reduce decision-making time.
- Positioning the TAC CP and the command group forward to see and control the battle.
- Using IPB to predict probable enemy intentions and to operate within the enemy decision cycle.
- Using well-defined standing operating procedures (SOP) to provide accurate reporting and rapid reaction on the battlefield. This includes adjusting CS and CSS assets when the maneuver plan or task organization changes.
- Training the brigade staff and assigned battalions to respond quickly to changing situations with minimum guidance, while remaining consistent with the commander's intent.

Automated command and control systems and FS and surveillance systems provide commanders the ability to quickly access information on friendly combat and logistical capability and the capabilities of the enemy in near real time. This capability allows commanders to control the tempo of military operations in a manner that allows his forces to exploit the situation.

## Synchronization

Synchronization is arranging activities in time and space to mass the effects of combat power at the decisive time and place. The product of effective synchronization is maximum use of every resource to make the greatest contribution to success. Brigades synchronize their operations by:



- Ensuring that IEW operations are linked to the commanders requirements and respond in time to influence decisions and operations.
- Designating and resourcing the brigade main effort.
- Coordinating and integrating CS and CSS assets.
- Using the logistics estimate to ensure adequate resources are available and allocated.
- Rapidly massing combat power effects at the decisive point to achieve local surprise, mass, and shock effect without lengthy explanations or orders.
- Planning in advance to exploit the opportunities created by tactical success.
- Allowing decentralized execution of operations.
- Using synchronization tools.
- Conducting rehearsals.

## **Versatility**

Versatility is the ability of a brigade to shift focus, to tailor forces, and to move rapidly and efficiently from one mission to another. Versatility implies a capacity to be multifunctional, to operate through the full range of military operations. At the brigade level, versatility requires:

- Understanding the commander's intent two levels up.
- Anticipating major changes based on the tactical and political situation.
- Providing clearly defined objectives and guidance to subordinates.
- Conducting detailed planning in depth.
- Improvising as needed.
- Applying the military decision-making process and principles.

## **GENERATING COMBAT POWER**

Maneuver, firepower, protection, and leadership comprise the dynamics of combat power. Combat power is the effect created by combining the four dynamics in combat action against an enemy. Commanders generate combat power by anticipating future operations and, once committed, applying the dynamics of combat power. Information about enemy and friendly forces capabilities is key to generating and sustaining combat power.

### **Maneuver**

Maneuver is the employment of forces on the battlefield through movement, supported by fire or fire potential, to achieve a position of advantage in respect to the enemy in order to accomplish the mission. It is the means of concentrating forces at decisive points to achieve surprise, psychological shock, physical momentum, and dominance. Maneuver and firepower are complementary dynamics of combat power. Although one might dominate a phase of the battle, the synchronized effects of both characterize all operations.

### **Firepower**

Firepower provides the destructive force essential to destroying the enemy's ability and will to

fight. Firepower includes the focusing and resourcing of direct and indirect fires (lethal and nonlethal), and other combat multipliers with maneuver to destroy the enemy.

## Protection

Protection conserves the fighting potential of a force so commanders can apply it at the decisive time and place. It has four components:

- The first component counters the enemy's firepower and maneuver by making soldiers, systems, and units difficult to locate, strike, and destroy. This is accomplished by implementing passive and active measures such as camouflaging, fortifying fighting positions, conducting security and reconnaissance activities, and enforcing strict operations security (OPSEC) standards.
- The second component includes conducting and maintaining all CSS activities to keep soldiers healthy and to maintain their fighting morale.
- The third component is safety. Commanders enforce safety procedures in training, planning, and conducting operations to preserve combat power.
- The fourth component is the prevention of fratricide. Commanders seek to lower the probability of fratricide while not overly constricting boldness and audacity in combat by planning, rehearsing, and controlling direct and indirect fires.

## Leadership

The most essential dynamic of combat power is competent and confident leadership. Leaders determine the degree to which maneuver, firepower, and protection are maximized, effectively balanced, and brought against the enemy. Commanders at all levels develop tactical and technical leaders by stressing regular study of military doctrine, theory, and history and by providing a training environment that allows for practical experience.

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## SECTION IV. BRIGADE BATTLEFIELD FOCUS

Inherent in Army operations is the simultaneous attack of enemy forces. The brigade's primary focus is to defeat the enemy while protecting its CS, CSS, and command and control facilities. The brigade must be poised to exploit every opportunity to disrupt the enemy's timetable by combining the effects of fires, barriers, and maneuver throughout the depth of the battlefield. Simultaneous operations open opportunities for decisive action by reducing the enemy's ability to generate combat power and creating periods of friendly superiority to gain or retain the initiative. Simultaneous operations are based on the characteristics of effective intelligence. Intelligence must be timely, relevant, accurate, and predictive. Intelligence will support the brigade through the intelligence battlefield operating system (BOS).

A brigade may conduct deep operations with fixed-wing air, artillery interdiction, and Army combat aviation. The commander and staff identify high-payoff targets (HPT) and synchronize organic and supporting higher headquarters' attack assets to destroy them. Offensive EW systems must be designated with FS assets to affect deep targets. Deception can also be used to delay and disrupt enemy forces. The use of information generated from the division ASAS

enhances the brigade's ability to plan and synchronize operations.

Each echelon of command creates the time and space necessary for its major subordinate echelons to defeat enemy forces in contact before engaging those not in contact. This is done by attacking enemy forces or functions to delay, disrupt, and destroy them before they can affect operations of subordinates. The subordinate commander may request the superior commander to take specific measures against deeper enemy forces, normally in the subordinate's battle space that may impede accomplishment of his mission. The subordinate commander should specify what effect he wants done to the enemy: delay for a specific time, canalize along a specific avenue of approach, or defeat in a specific area.

Brigades normally fight as part of a division. Separate brigades are organized for and normally conduct sustained operations under corps control. In either case, brigades most often fight as part of a larger force. Divisional brigades are tactical headquarters that control mission-tailored battalion task forces. When operating with a division in war, brigades normally direct engagements against enemy battalions and regiments beyond the forward line of own troops (FLOT) by controlling task forces and attack helicopter units, by establishing priorities of supporting artillery fires, and by coordinating CAS operations (joint and combined). Brigades direct and coordinate the actions of subordinate task organized units. Brigade commanders select the ground for the battle and the form of maneuver to accomplish the mission. The brigade influences an engagement mainly through synchronizing reconnaissance and security efforts, task organizing maneuver battalions, assigning subordinate missions and tasks, applying combat multipliers, assigning and shifting priorities of CS and CSS assets, and constituting and committing a reserve. The brigade fights the battle through integration of the combined arms team. The end result of effective synchronization appears to the enemy as one continuous fight.

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## **SECTION V. THE THREAT ENVIRONMENT**

The brigade no longer faces a single, monolithic, well-defined threat. During the Cold War, planning was centered on confronting numerically superior heavy opposing forces (OPFOR) in Europe, the Far East, or Southwest Asia. Now the brigade must focus on conducting contingency operations (CONOP) as part of a force projection operation. These brigades must be able to conduct these operations across the range of military operations (peace, conflict, and war) against threats ranging in size from major regional powers, lesser powers, and terrorist groups to insurgents.

Emerging regional threats are more diverse and less predictable than former Cold War adversaries, but are just as deadly. These threats reflect the more traditional threat concept such as armor, infantry, and artillery formations maneuvering on a battlefield with CAS and the possibility of using weapons of mass destruction. However, the brigade may also be called upon to conduct operations in the midst of a nontraditional threat.

The brigade may face a nontraditional threat while conducting OOTW. Though a brigade may not be initially deployed to conduct some of these operations, it could conduct them as part of the post-conflict phase of some other CONOP.

With the diversity of the threat, the IPB process becomes even more important at the brigade

level. No longer will the threat always fit into a neat time-distance (TDIS) scenario. Potential adversaries may use a wide variety of doctrine, tactics, and equipment. The staff supports the commander by conducting IPB throughout the entire operation.

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## The Armored and Mechanized Infantry Brigade

### CHAPTER 2 FUNDAMENTALS OF BRIGADE OPERATIONS

Army operations reflect the changing nature of war. Brigades must be versatile organizations capable of deploying anywhere in the world on short notice. Brigades operate within joint, multinational and/or multiagency operations and must synchronize all available systems.

Fighting and winning battles and engagements remain the brigades primary purpose. Commanders mass the effects of combat power, when and where necessary, to accomplish missions. New technology gives commanders the capability to attack the enemy simultaneously throughout the depth of the battlefield.

This chapter discusses the fundamentals of brigade operations under three main topics:

- It addresses brigade doctrine for force projection operations.
- It depicts a framework for tactical battlefields.
- It discusses the BOS as fundamental to brigade operations.

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Section II.	<a href="#">Tactical Battlefield Framework</a>
Section III.	<a href="#">Battlefield Operating Systems</a>

## SECTION I. FORCE PROJECTION

### GENERAL

Force projection is the demonstrated ability to rapidly alert, mobilize, deploy and operate anywhere in the world throughout the spectrum of Army operations. Force projection operations extend from mobilization to deployment and subsequently to redeployment.

### STAGES OF FORCE PROJECTION

Force projection usually begins as a rapid response to a crisis although it may involve a deliberate, slower buildup and deployment. During peacetime, the brigade includes deployment as part of its training.

Brigades generally execute force projection operations in six stages. The ensuing discussion provides a general overview of each stage and addresses key implications for the brigade. An example N-Hour sequence is at [Appendix G](#).

## **Predeployment Activities**

Predeployment activities include planning, task organizing and echeloning the brigade, as well as preparing personnel and equipment for deployment. When alerted, the brigade may have to modify existing OPLANs. These modifications may include readjusting task organizations for initial entry and follow-on forces into the AO, sequencing of forces, and refining sustainment requirements.

The key to the brigades deployment is task organizing, echeloning, and tailoring forces. Task organizing is the process of forming combined arms task forces with limited self sustainment capability for rapid deployment. Echeloning is organizing and prioritizing units for movement. Echelons are often divided into elements such as advanced parties, initial combat forces, follow-on forces and closure forces. Each echelon has a designated commander. Task organizing and echeloning occur during initial planning. Force tailoring is the adding or subtracting from planned task organizations and occurs after a thorough mission, enemy, terrain, troops and time available (METT-T) analysis by the commander and his staff.

Following receipt of a mission, the brigade prepares its personnel and equipment for deployment through preparation for overseas movement activities. These activities ensure that deploying units meet all requirements to deploy into another theater of operations.

## **Deployment**

The proper arrival sequence of forces into an AO contributes to the stabilization of the situation and maintains a viable force protection capability. The time-phased force deployment data programs the arrival of equipment. Units arrive in a theater, by air or sea, and then move rapidly through marshaling areas, staging areas, and tactical assembly areas before executing operations.

## **Entry Operations**

The brigade arrives in theater either as an entry force or a follow-on force. Entry forces are tailored to carry out initial combat operations to secure the lodgment. Follow-on forces expand lodgments and build up combat power to conduct combat operations. The brigade may conduct either an opposed or unopposed entry.

During an opposed entry, the brigade conducts a forcible entry into an area that may contain hostile forces. In this situation initial entry forces are primarily combat forces.

During an unopposed entry, the brigade may serve as a deterrent, act as an advance party for a larger force, or participate in noncombat operations. The brigade may also conduct an unopposed entry under hostile conditions. The brigade deploys into an area where combat operations are ongoing or imminent but the points of debarkation (POD) are secure. In either

opposed or unopposed entry operations, consider security of the force when tailoring the initial entry units.

## **Operations**

Operations are the missions executed by the brigade that contribute to overall mission accomplishment. The brigade may conduct both combat and noncombat operations. During combat operations the brigade conducts offensive, defensive, and other operations discussed in later chapters. Another section in this chapter discusses noncombat operations as part of OOTW.

## **War Termination and Postconflict Operations**

War termination and postconflict operations are activities taken to restore conditions in the AO that are favorable to US national policy. During this period, the brigade focuses on force security and preparing for redeployment.

Planning and versatility are two vital components of successful post-conflict operations. Commanders and their staffs begin planning postconflict operations before cessation of combat operations. This planning includes: adjusting the rules of engagement (ROE), force protection measures, host-nation considerations and the transfer of responsibilities to units assuming control of the brigades AO.

Postconflict activities include a variety of tasks from enemy prisoner of war (EPW) control to civil affairs (CA) of the host nation. The brigade also begins retraining its units on critical tasks and preparing for follow-on missions. Transferring responsibilities (for the brigade) is normally conducted as a relief in place.

## **Redeployment and Reconstitution**

Redeployment is situation dependent and requires task organizing and echeloning similar to deployment. Some units and personnel will depart early, such as advance parties, nonessential personnel, and equipment. During this phase units continue to train on individual and mission essential task list (METL) tasks.

The objective of reconstitution is to prepare for follow-on missions rapidly. These activities include rebuilding unit integrity and accounting for soldiers and equipment. These activities continue after arrival in continental United States (CONUS) or home theater. The focus is on reconstitution of units to predeployment levels of readiness.

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# **SECTION II. TACTICAL BATTLEFIELD FRAMEWORK**

The battlefield framework helps the commander visualize how to best employ his forces. It relates friendly forces to one another and the enemy in terms of time, space, resources, and purpose. At the tactical level, the battlefield framework consists of three interrelated concepts: AO, battle space, and an organization of the tactical battlefield.

The next higher headquarters normally assigns the brigade commander an AO. He then visualizes the battle space where he will employ his combat power to dominate the enemy. In visualizing his battle space, the commander considers key and decisive terrain, direct and indirect fires, and probable enemy courses of action (COA). The commander thinks in depth and visualizes how to engage the enemy simultaneously throughout the depth of the battlefield.

## **AREA OF OPERATIONS**

An AO is designated by higher head-quarters and is depicted by graphic control measures. At a minimum, the AO should be large enough for the commander to employ all of his organic, assigned, and supporting assets. The brigade commander establishes control measures within his AO to assign responsibility, coordinate fires and maneuver, and to control other activities. Both war and OOTW use the concept of AO.

## **BATTLE SPACE**

A commanders capability to acquire and, more importantly, dominate the enemy determines a physical volume called battle space. It includes the brigade commanders vision of how he will employ his assets and actions to dominate the enemy. Battle space can change as the commanders vision of the battlefield changes. It also changes according to how the commander positions his assets. All friendly combat power that the commander can bring to bear on the enemy is included in his vision of battle space. Agility, lethality, and speed of both friendly and enemy combat systems influence battle space.

## **TACTICAL BATTLEFIELD ORGANIZATION**

Commanders must consider all aspects of the three-dimensional battlefield and use standard control measures to organize their AO. Battlefields may be linear, asymmetrical, or noncontiguous and generally include deep, close, and rear components. Deep, close, and rear are not separate fights; each is part of the entire tactical battle.

## **Deep Operations**

The best way to defeat the enemy is by fighting him simultaneously throughout the depth of the battlefield. Deep operations are normally those operations conducted against enemy forces not in the close fight. Deep operations prevent the enemy from using his forces when and where he wants on the battlefield. These operations are not necessarily a function of depth, but a function of what forces are being attacked and the intent of the operation. Deep operations are conducted in both the offense and defense.

Simultaneous deep and close engagements prevent the enemy from concentrating his strength. The perceived or actual threat of a force against an enemy's weakness may be sufficient to divert the enemy and force him to protect that vulnerability. Simultaneous attacks force the enemy to fight in one direction and protect himself in another. This results in the enemy committing his forces where he did not intend and disrupts his overall plan.

The commander and staff must have a clear understanding of the purpose and objectives of



deep operations. They must recognize the benefits of deep operations versus operations against committed forces on the FLOT.

## **Close Operations**

Close operations consider and include reconnaissance and security, a main effort and a reserve. Battalions in immediate contact are fighting the close battle.

The brigade commander decides when and where the close battle will occur. Concentrating the effects of his combat power in support of ground forces becomes the brigade commanders focus in close operations.

## **Reconnaissance and Security**

Reconnaissance and security are critical to the brigades success. In general, reconnaissance and security are two missions. At brigade both are closely related. Reconnaissance actions yield information on the disposition and intentions of enemy forces and direct friendly units into the fight. Security protects and conserves the combat power of the brigade.

## **Main Effort**

The main effort is assigned to only one unit at a time. Designating a main effort provides the focus that each subordinate needs to link his actions to the actions of those around him. The commander and staff must be flexible enough to shift the main effort as needed.

## **Reserves**

Reserves give a commander options and flexibility. Reserves exploit success and expedite victory. They are used to weight the main effort to maintain momentum, provide security, and defeat enemy counterattacks. Missions for the reserve are planned and are not solely in response to unforeseen enemy actions.

## **Rear Operations**

The objective of rear operations is to ensure freedom of maneuver and continuous operations. Rear operations are generally concerned with maintaining lines of communication (LOC) and support during an engagement. This includes securing main supply routes (MSR) against level I and II threats. Additionally, rear operations maintain the rate of supply necessary to sustain the current operation.

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# **SECTION III. BATTLEFIELD OPERATING SYSTEMS**

## **INTELLIGENCE**

BOS intelligence to the commander drives the brigades intelligence effort. His role does not begin with the current crisis or operation, but well before and is continuous throughout the

operation. The commander focuses the intelligence effort and ensures it is responsive to his information requirements (IR) and those of his subordinates. He focuses the effort by stating his priority intelligence requirements (PIR) and targeting priorities. In his PIR and IR, he includes his requirements for intelligence support to force protection and battle damage assessment (BDA). Through his S2, the commander ensures the intelligence BOS, both his own and that of higher echelons is responsive to his needs and focused on his requirements.

It is especially critical that an up-to-date enemy data base be prepared during the IPB process by the brigade S2 to support offensive operations and to answer the commander's PIR. The threat estimate and data base are used to identify specific enemy vulnerabilities and weaknesses. This information assists the brigade commander in properly concentrating his available combat power.

The development of PIR and IPB is a continual process throughout the planning and execution of the operation. The brigade intelligence section answers PIR using a detailed reconnaissance and surveillance (R&S) plan developed and coordinated by the brigade and battalion task force S2s and S3s. The brigade S2 requests additional information and collection assets from its higher headquarters when the brigade commander's PIR cannot be gathered by organic brigade assets.

During the operation, the brigade S2 provides the commander continuous updates of enemy activities and anticipated enemy COAs. His sources include reports from the ASAS, monitoring of battalion radio nets, and analysis of reported sightings of enemy activities.

## **MANEUVER**

The brigade commander employs all of his organic and supporting systems to create the conditions for success. The brigade commander then maneuvers his forces to defeat the enemy with minimum risk to his soldiers.

By maneuver the brigade gains the potential to destroy the enemy or hinder his movement through the direct or indirect application of lethal combat power. As the brigade commander develops his concept of the operation and considers the maneuver of all his forces, he must retain a balance in the application of maneuver, firepower, and protection. The nature of this balance establishes the priorities and relationships of maneuver to other operating systems as the commander translates the art of his vision of operations to the science of detailed planning and execution of combat functions.

## **FIRE SUPPORT**

FS can deliver a variety of Army and joint munitions throughout the depth of the battlefield. The brigade is normally supported by a DS FA battalion. Additional FS assets may include

- CAS.
- Naval gunfire (NGF).
- Army aviation.
- Reinforcing and GS reinforcing FA battalions.

The brigade fire support element (FSE) is the focal point for the integration of all FS for the brigade. The brigade FSCOORD is the DS FA battalion commander. He is assisted by the brigade FSO. When the FSCOORD is not available, the FSO advises the maneuver commander on FS. To effectively integrate FS into the operation, the FSCOORD must understand the mission, the commander's intent, the concept of the operation, and the commanders guidance for FS. The FSCOORD is critical to the planning process from the outset. The FSCOORD ensures FS assets are properly employed and synchronized.

## **AIR DEFENSE**

The division commander's ADA priorities determine what ADA resources the brigade will receive. Normally, the brigade receives a battery of ADA.

The air defense officer (ADO) must understand the commander's mission, intent, and concept of the operation. Continued involvement of the ADO in the planning process is critical to the successful integration of ADA support with the brigade concept. The ADO recommends air defense priorities to the brigade commander, and coordinates with the brigade S3 for terrain requirements for ADA weapons and sensors.

Mobile systems such as the Bradley Stinger fighting vehicle (BSFV), man-portable air defense (MANPAD), and in certain situations, Avenger, will support the maneuver force in the forward area. If MANPADs are used in the forward area, provisions for armor protection, command and control, and early warning must be made.

The entire combined arms team has a role in counterair operations. All units practice air defense early warning and passive air defense measures. Also, tanks, crew-served weapons, indirect fires, intelligence, and EW systems, add to the all-around protection of the force. During offensive operations beyond the range of forward area air defense (FAAD) sensors and voice communications, special provisions for early warning throughout the brigade must be planned, coordinated, and implemented.

## **MOBILITY AND SURVIVABILITY**

This BOS includes both engineer and nuclear, biological, chemical (NBC) functions. Specifically, it addresses mobility, countermobility, survivability, and NBC defense operations.

### **Engineer**

Engineer operations provide mobility to the brigade, degrade the enemy's ability to move on the battlefield, and provide protective emplacements for personnel and equipment. Mobility, countermobility, and survivability operations are planned to be consistent with the commanders intent and to complement the concept of the operation.

The brigade engineer must receive clear guidance and priorities for the engineer effort. He is an integral part of the development of the concept of the operation; he coordinates with the S3, FSO, ADO, S2, and S4 to integrate and synchronize engineer operations.

### **Nuclear, Biological, and Chemical Defense Operations**

Division assets available to support brigade offensive operations include NBC decontamination, NBC reconnaissance, and smoke. These assets are normally platoon-size organizations. Based on the factors of METT-T, these organizations may be OPCON, attached, DS, or GS to the brigade.

## **Decontamination**

Brigade decontamination operations during the offense focus on immediate and operational decontamination operations. Thorough decontamination operations are designed for reconstitution operations. Operational decontamination operations are conducted at the battalion level using organic lightweight decontamination equipment.

The brigade commander identifies mission-critical assets and establishes priorities for decontamination within the brigade. The S4 coordinates logistics support for decontamination and provides it through normal supply channels.

## **Reconnaissance**

All brigade units have an implied mission to conduct NBC reconnaissance using organic detection and identification equipment. The brigade S3 establishes the NBC reconnaissance requirements and tasks based on the brigade chemical officer's recommendations. The procedures for detecting, marking, identifying, and reporting of contaminated areas are established in SOPs according to relevant Standardization Agreements (STANAG).

## **Smoke**

The brigade conducts smoke operations to screen friendly forces and obscure or deceive enemy forces. Normally, smoke is employed with at least one deceptive screen for every primary smoke screen. Assets that are available to provide smoke include the vehicle engine exhaust smoke system (if using DF2), smoke pots, artillery and mortar smoke, and generated smoke. To conduct a successful smoke mission, the brigade must provide the following information to the supporting smoke unit:

- Commander's intent.
- Location of target.
- Length of mission.
- Start time.
- Visibility requirements.

## **COMBAT SERVICE SUPPORT**

The brigade S4 identifies and coordinates the specific logistics needs of the maneuver brigade. Based on the brigade S4's planning estimate, the forward support battalion (FSB) commander and his staff tailor a mobile CSS package to be pushed forward to support the brigade. Specific coordination for locations of ammunition transfer points (ATP), unit maintenance collection points (UMCP), and MSR outside of the brigade support area (BSA) are coordinated between



the FSB S3 and brigade S4 at the rear CP and approved by the brigade S3. This coordination ensures the integration of the CSS plan with the tactical plan.

FSB logistics support must be continuous. The FSB displaces priority resupply classes by bounds to support the momentum of the offense. The movement of the FSB is coordinated among the FSB, rear CP, and main CP to ensure continuous support and to avoid impeding maneuver elements.

## **COMMAND AND CONTROL**

The command group, augmented by other special staff as desired by the commander, is positioned to see, sense, and control the battle. By being well forward, the commander can feel the tempo of the battle, improve communications, and influence the main effort with his presence. The command group moves much of the time and relies on the brigade main CP to maintain communications with higher and flanking units.

For security, the TAC CP and the main CP should move frequently. Usually, one section is stationary while the other repositions. While the main CP displaces, the TAC CP may require augmentation to adequately perform the command, control, communications, and intelligence function. Therefore, the TAC CP may be augmented with personnel from the current operations, intelligence, operations support, and FS sections out of the main CP. The signal section leapfrogs FM retransmission systems and mobile subscriber equipment (MSE) forward to maintain communications.

The main CP continues to perform its essential current battle coordination; however, the main CP focuses its effort toward future battle planning. This is possible because the disruption of frequent displacement has caused much of the command, control, communications, and intelligence structuring for working the current battle to be pushed forward to the TAC CP and command group.

The rear CP and FSB commander are heavily committed to pushing CSS forward through the cluttered battlefield to sustain operations. The rear CP and FSB commander are initially concerned with sustaining forward units; providing rear area security; clearing MSR; evacuating casualties, equipment, and EPWs; and preparing to reestablish CSS base areas forward. The rear CP and FSB commander are responsible for terrain management in the BSA.

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# FM 71-3

## The Armored and Mechanized Infantry Brigade

### CHAPTER 3 BATTLE COMMAND

Battle command is the art and science of battlefield decision making and leading soldiers and units to successfully accomplish the mission. The battle command basic elements are decision making, leading, and controlling. The battle command system at brigade level enables commanders to lead, prioritize, and allocate assets required to employ and sustain combat power. The brigade commander must see further, process information faster, and strike more precisely and more quickly. If information is the medium of the battle command process, the battle command system must provide the commander with timely and accurate information on which to base the commanders decision.

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### SECTION I. GENERAL

#### DEFINITION

Command and control is not one word as commonly perceived and used. The words "command" and "control" are separate and distinct, with differing applications to how the brigade fights. Command is the art of assigning missions, prioritizing resources, guiding and directing subordinates, and focusing the entire brigade's energy to accomplish clear objectives. Control is the science of defining limits, computing requirements, allocating resources, prescribing requirements for reports, monitoring performance, identifying and correcting deviations from guidance, and directing subordinate actions to accomplish the commander's intent. The size of the CP depends on the amount of control the commander and higher headquarters demand.

The command and control process is comprised of:

- Coordinating.
- Planning.

- Directing.
- Controlling.

The command and control process is executed through:

- Leadership.
- Command and control facilities.
- The planning process.
- Communication.

## **Command and Control**

In battle, leaders at all levels are challenged by the magnitude of available information that will continue to increase in the future. They must use this information to apply direction to their efforts to achieve victory. The commander leads, conceptualizes, visualizes, synchronizes, and makes timely key decisions. The brigade staff acquires, synchronizes, and disseminates decisions and information. The commander must be where he can best influence the battle, where his moral and physical presence can be felt, and where his will to achieve victory can best be expressed, understood, and acted upon. Command remains a personal function. The commander must appreciate time and distance factors, looking beyond the immediate operation. He must continually evaluate the situation and wargame COAs. He must understand the factors of METT-T and know his force sustainment and force protection requirements.

Command includes the responsibility of accomplishing assigned missions as well as a responsibility to the nation for the lives of the soldiers entrusted to them.

To control is to define limits. Control within the brigade is the science of computing requirements, allocating means, and integrating efforts. It monitors the status of organizational effectiveness, identifies variance from set standards and guidance, and corrects the deviations. It acquires and applies the means to accomplish the commander's intent and develops specific instructions from general guidance.

Control serves its purpose if it allows the commander freedom to operate, delegate authority, lead from any critical point on the battlefield, and synchronize brigade operations across its AOs. The command and control system must support the ability of the commander and his staff to adjust plans for future operations while focusing on the current fight. The tools for implementing command decisions include orders, SOPs, communications, and computers.

## **Command and Control Guidelines**

Some basic, time-tested imperatives to improve successful command and control are listed below. These imperatives drive the successful development and efficient operations of the brigade's CPs and determine their effectiveness in combat. The guidelines are

- A headquarters must be small to be efficient.
- Just as there can be only one brigade commander, there can be only one brigade CP exercising control of any specific organizational area on the battlefield at any one time.
- If a commander is to be effective in a crisis, he must limit the number of voices he hears.

- If the commander wants his staff to keep him informed, he should avoid lengthy prepared briefings and rely on unstructured, unscheduled discussions. This does not mean that some structured and scheduled briefings will not occur within the brigade.
  - When a commander gives a subordinate a new or revised mission, he should deliver or explain it orally and preferably face-to-face, if time and circumstances permit.
  - A CP is organized to acquire and disseminate information in a prioritized fashion.
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## **SECTION II. ORGANIZATION AND FACILITIES**

### **BRIGADE COMMANDER**

The brigade commander analyzes and restates the mission, designs the concept of operations, organizes the forces, determines the main effort, establishes the brigade reserves, transmits his own and the higher commander's intent, and provides support to subordinate units. The brigade commander controls the ongoing battle and provides planning guidance for future operations. He positions himself to follow and influence operations and maintains communications with higher, lower, and adjacent units. The commander must be totally mobile and not depend on a fixed site, CP, or specific vehicle to exercise his command and control responsibilities. He reacts immediately to directions from his higher commander to release and receive forces. When his organization or mission changes, he reorganizes only as needed. Teamwork, functional SOPs, and a clear understanding of the mission permit his subordinates to quickly translate a broad mission order into action.

The commander should not stay in the main CP. The best way for him to get information is from firsthand observation, by visiting subordinate CPs, and by listening to subordinate command nets, to include battalion and company nets when necessary. The commander should not fail to make independent decisions about today's battle for fear that they may be inconsistent with what he wants to do tomorrow.

The commander's intent describes the desired end state. It is a concise expression of the purpose of the operation and must be understood two echelons below the issuing commander. It must clearly state the purpose of the mission and is the single unifying focus for all subordinate elements. It is not a summary of the concept of the operation. Its purpose is to focus subordinates on the desired end state. Its utility is to focus subordinates on what has to be accomplished to achieve success, even when the plan and concept of operations no longer apply, and to discipline their efforts toward that end.

The intent statement is usually written but can be verbal when time is short. It should be concise and clear; long, narrative descriptions of how the commander sees the fight tend to inhibit the initiative of subordinates. A brigade commanders order should contain the intent statement of the division or next higher commander.

### **Chain of Command**

The commander issues orders and receives information through the chain of command. He issues all orders to the commander of the next lower unit. Bypassing commanders should occur

only in urgent situations. In such instances, the bypassed commander should be notified by the commanders involved as soon as possible.

## **The Staff**

### ***Functions***

Staff officers assist their commander in accomplishing the mission. They help the commander make decisions by acquiring, analyzing, and coordinating information. Staff officers present critical information and a recommendation to the commander so he can make good decisions (see FM 101-5 for more detailed information). Common staff functions include:

- Providing information.
- Making estimates.
- Making recommendations.
- Preparing plans and orders.
- Supervising the execution of decisions.

### ***Responsibility and Authority***

Staff officers are assigned functional areas of interest and responsibility. Normally, the commander delegates authority to the staff to take final action on matters within command policy. The assignment of staff responsibility does not connote command authority over other staff officers or over any other command element.

### **Relationship with Subordinate Commands**

Staff officers support subordinate units and establish good working relationships with subordinate commanders and staffs. The staff should make recommendations and offer advice to subordinate commanders; they may not, however, deny or refuse a subordinate commander's request, except in those areas where the commander has delegated authority for them to do so. Staff officers contact a subordinate command, in the commander's name, only to transmit orders or instructions, but they may offer assistance or exchange information in their own or in the commander's name. If a staff officer determines a subordinate command is not complying with the commander's directives, the staff officer advises the subordinate commander or his staff of the noncompliance. The staff officer then reports his observation and recommendation to his commander. Staff officers normally honor informal requests for information from the higher level staff; they should be open for suggestions from subordinate units.

### **Command and Staff Communications**

The command channel is the direct, official link between echelon headquarters and commanders. Orders and instructions to subordinate units pass on this channel. Within their authority, staff officers may use command channels when acting in the commander's name. The staff channel is the staff-to-staff link between headquarters for coordination and

transmission of information.

## **Coordination**

Coordination is critical to the commander's synchronization of the battle. It must occur internally with combat, CS, and CSS units and externally with higher and adjacent units. It prevents the enemy from exploiting unit boundaries and enables the commander to produce maximum relative combat power at the decisive time and place.

## **COMMAND AND CONTROL ORGANIZATION**

The successful commander delegates authority and fosters an organizational climate of mutual trust, cooperation, and teamwork. The brigade staff working within the TAC CP, main CPs, and rear CPs is composed of personal, coordinating, and special staffs. Coordinating staff officers are the commander's main staff assistants. They assist the commander by coordinating the plans and operations of the brigade.

### **Personal Staff**

The personal staff consists of the deputy commander or executive officer (XO) and the command sergeant major (CSM) who work under the immediate control of the commander and directly assist him in the exercise of command. FM 101-5 contains more detailed information on specific staff positions.

### **Deputy Commander**

In the separate armored brigade, a deputy commander is authorized to assist the commander in the performance of his duties. The deputy commander is kept informed by the staff of operations, plans, intentions, goals, and problems so he can assume command at any time. The deputy commander normally operates within specific areas defined by the commander. These areas may include responsibility for the operation of the BSA, logistics support of the operation, coordination and execution of rear operations, and main CP and BSA interface.

### **Executive Officer**

The XO performs a variety of functions for the commander. The XO is the chief of staff responsible for assignment of tasks and for the efficient, coordinated, prompt response of the staff in support of the commander. He is responsible for the operation of the main CP. The XO directs and coordinates CS with the commander's plan and ensures continuous CSS. During certain periods, the XO may personally go to the trains to determine the status of CSS operations. The XO remains current on the tactical situation and is prepared to assume command. The XO is responsible for the conduct of rear operations because of his duties of coordinating the staffs of the main and rear CPs.

### **Command Sergeant Major**

The brigade CSM's primary role is to advise the brigade commander on matters concerning the



enlisted soldiers of the brigade. The CSM is not an administrator, but he understands the administrative, logistics, and operational requirements of the brigade. The CSM is the most experienced enlisted soldier in the brigade and keeps his finger on the pulse of the command. The CSM receives taskings from the brigade commander and acts as a troubleshooter. The CSM focuses attention on functions critical to the success of the operation.

## **Coordinating Staff**

### ***Adjutant (S1)***

The S1 normally operates in the brigade operations support section located in the BSA with the S4 section. The S1 is responsible to the brigade commander for the maintenance of unit strength, personnel, morale, discipline, and law and order. The S1 supervises and coordinates various special staff sections including those of the public affairs officer (PAO), chaplain, and surgeon. He is a point of contact for other activities including the inspector general (IG), civil affairs (CA), and judge advocate general (JAG). In the separate brigade, the S1 also serves as the adjutant general. The S1 sections cross-train to enable them to conduct continuous operations.

### ***Intelligence Officer (S2)***

The S2 and the DS MI company commander are a team whose mission is to provide IEW support to the commander. As a team, they are responsible to the commander for planning and directing the intelligence activities of the brigade. The S2 is the senior intelligence officer and primary staff officer for intelligence. He directs and supervises the commanders EW operations including counter-intelligence. He ensures the commander is supported with timely intelligence, targets, and BDA. Additionally, he coordinates with the S3 and FSO to ensure EW is fully integrated with FS.

### ***Operations and Training Officer (S3)***

The S3 is the commander's primary assistant in planning and coordinating operations of the brigade and CS elements. The S3 is located in the brigade TAC CP and assists the commander in fighting the current battle. The brigade S3 is the OIC of the TAC CP when it is deployed forward. The S3, through the brigade TOC, coordinates closely with the S4 to keep abreast of the current CSS status. The S3 ensures his personnel are trained and equipment maintained to support the brigade XO in the main CP.

### ***Logistics Officer (S4)***

The S4 is responsible for operation of the rear CP. He provides logistics information to the commander and functions as the brigade's logistics planner.

The S4 coordinates with the battalion's XOs and S4s about the status of equipment and supplies. The S4 has representatives in both the main and rear CPs. The S4 participates in the planning process when it occurs. The S4 coordinates with the FSB commander and support operations officer to ensure the brigade commander's logistics priorities are understood and

supported.

### ***Civil Affairs Officer (S5)***

An S5 is organic to a separate brigade and is assigned to a divisional brigade staff by division or corps when needed. The S5 is responsible for all matters pertaining to political, economic, and social aspects of military operations. The S5 is the brigade's liaison between civil authorities and the civilian populace in the brigade's AO. The S5 is located at the main CP.

### ***Special Staff***

The special staff aids the commander in professional, technical, or other functional areas. The specific number and duties of special staff officers vary at each level of command based on table of organization and equipment (TOE) authorizations, desires of the commander, and the size and level of command. The special staff functions are described in FM 101-5.

### ***Air Defense Officer***

The brigade ADO is the commander of the DS battery that normally supports the brigade. The ADA battery commander integrates ADA weapons and sensors throughout the brigade sector or zone to protect the force and provide early warning. In the absence of an ADA battery in support of the brigade, an ADA LO may serve as the ADO for the brigade. The ADO or ADA LO advise the brigade commander on all air defense matters. To assist the employment and planning for air defense assets the ADA battery CP collocates with the brigade TOC.

### ***Air Liaison Officer***

The air liaison officer (ALO) is an Air Force officer who is a member of the tactical air control party (TACP). The ALO is the brigade commander's advisor on support that includes the employment of TACAIR as CAS, joint suppression of enemy air defenses (JSEAD), reconnaissance, and airlift. The ALO coordinates CAS missions with the FSE. The ALO provides the commander and staff enemy TACAIR and air defense capabilities. The ALO supervises the TACP and forward air controllers (FAC). The ALO is located with the command group.

### ***Air Naval Gunfire Liaison Officer***

If operating near coastal waters, the brigade may be provided naval air and gun FS. Air naval gunfire liaison officer (ANGLICO) personnel are provided to advise the commander, request, coordinate, and control naval air and NGF.

### ***Army Aviation Liaison Officer***

The combat aviation brigade provides an Army aviation LO to work in the main CP when aviation assets are employed by the maneuver brigade. Primary duties of the aviation LO include:

- Advising the commander on employment of aviation assets.

- Assisting the S3 in preparation of aviation portions of estimates, plans, orders, and reports.
- Functioning as part of the airspace management element.
- Coordinating with the brigade S3/XO for positioning of aviation assets including the forward arming refuel point (FARP) within the brigade AO.
- Coordinating with the S4 in matters concerning Army aircraft for CSS operations.

The Army aviation LO is located at the main CP, but may move with the brigade commander or lead battalion.

### ***Brigade Engineer***

The brigade engineer is normally the commander of the engineer battalion supporting the brigade. The engineer battalion commander advises and assists the brigade commander in all aspects of engineer planning, coordination, and execution. The brigade engineer determines the requirements for engineer support to include recommending the support relationship. The assistant brigade engineer is the commanders principal staff planner in the brigade main CP. He is assisted by other members of the engineer battalion staff. The brigade engineer prepares engineer estimates and engineer portions of the plans and orders to include the engineer annex. The brigade engineer provides the commander and staff information on the enemy's capabilities.

### ***Chaplain***

The brigade chaplain pastors to the HHC and provides ministry for casualties, EPWs, civilian internees, refugees, and collocated elements that do not have an assigned unit ministry team (UMT). He assists the commander by monitoring the leadership practices of the command to ensure the highest moral, ethical, and humanitarian standards. The chaplain is located at the rear CP.

### ***Chemical Officer***

The chemical officer advises the commander on all NBC matters. He participates in the planning process and prepares the NBC estimate. He also plans and coordinates decontamination operations. The chemical officer works under the direct supervision of the S3, and is located in the main CP.

### ***Direct Support Military Intelligence Company Commander***

The DS MI company commander plans and directs the employment of his subordinate IEW assets. He must understand the supported commanders intent and PIR operational and tactical objectives, overall scheme of maneuver and fires, and intelligence collection plan to effectively employ his IEW efforts. The MI commander may be frequently absent from his CP to coordinate with the S2 and to personally oversee the IEW operations of subordinates. He is the principal advisor to the brigade commander on IEW asset capability. The DS MI company commander must be able to deconflict terrain issues with the brigade S3 for GS or other

reinforcing MI assets operating in the brigade AO. The DS company CP is normally collocated with the brigade main CP.

### ***Fire Support Coordinator***

The commander of the DS artillery battalion serves as the brigade FSCOORD. The FSCOORD advises and assists the brigade commander in all aspects of FS planning and coordination. The FSCOORD is normally in the main CP during planning and is a part of the orders group. The FSCOORD provides a full-time FSE to the main CP. The brigade FSO is the OIC of the brigade FSE when the FSCOORD is not present. The brigade FSO may be part of the brigade command group during the battle.

### ***Forward Support Battalion Commander***

The FSB commander is the advisor to the supported brigade commander concerning supply, maintenance, field and health services, and the implementation of the CSS functions throughout the supported brigade. He coordinates logistic support missions with the brigade XO, S4, and division support command (DISCOM) elements operating in the BSA. The FSB commander exercises OPCON over CSS units operating in the BSA (see Chapter 8 for a discussion on the FSB commander's duties). In the separate brigade, the support battalion commander usually works through the deputy brigade commander and performs those duties normally associated with the DISCOM commander in the division.

### ***Headquarters and Headquarters Company Commander or Headquarters Commandant***

The HHC commander or headquarters commandant works closely with and answers to the brigade XO. The HHC commander is responsible for the training of assigned personnel, maintenance of organic equipment, and the support, security, and movement of the brigade main CP and TAC CP IAW unit SOP.

Three members of the brigade staff are unique in that they are also major subordinate commanders (battalion size) in the brigade. These officers must command and control their own units as well as coordinate major functional areas including but not limited to their direct subordinates.

### ***Military Police Platoon Leader***

The MP platoon leader is the staff adviser on MP combat, CS, and CSS operations. The MP platoon leader directs the actions of the brigade MP platoon in DS to a maneuver brigade. The MP platoon leader is located at the rear CP. In a separate brigade, the PM section is located in the main CP. In all other cases, the MP platoon leader is located in the main CP.

### ***Signal Officer***

The brigade signal officer (SO) is the signal expert to the maneuver commander and is located at the main CP. He advises the commander and staff on all signal support matters. He works for the unit and closely interacts with the S3 and other unit staff officers. The brigade SO plans

communications assets and resources to support current and future operations. The primary focus is brigade to task force command and control communications. The brigade SO is responsible for information transfer, networking automated systems, and standardization of communications policy, procedure, and training. He coordinates with the next higher echelon SO for additional communications support, if required. As a special staff officer, the brigade SO does the following:

- Acts as the brigade commanders advisor on communication matters.
- Recommends the location of the headquarters and signal facilities, and the use of signal activities for deception.
- Controls assigned or attached signal units.
- Controls communications assets assigned or attached to brigade.

## ***Surgeon***

The brigade surgeon advises and assists the commander on matters concerning force protection of the command to include preventive, curative, restorative care, and related services. The brigade surgeon is located at the brigade clearing station in the BSA.

## **COMMAND AND CONTROL FACILITIES**

Brigades are controlled from echeloned command and control facilities with varying levels of staff participation at each echelon. The facilities include a command group, TAC CP, main CP, and rear CP (see Chapter 3 Figure 3-1).

### **Command Group**

The command group is normally comprised of the brigade commander and selected staff, normally the S3, FSCoord, and TACP. The brigade commander is in charge of the command group and operates it forward at critical locations during a battle. The commander must be close enough to communicate with his battalion commanders and make face-to-face contact if necessary. The actual placement of individual personnel is made by the commander. The commander makes his decision based on his experience, analysis, needs, judgment, and on the mission; however, the functions for each CP remain constant.

### **Tactical Command Post**

The TAC CP controls current operations, providing the commander with combat critical information, and disseminates the commander's decisions. It is located as far forward as the battalion main CPs to facilitate communications with subordinate commanders, and the main CP. It is composed of the brigade S3, TAC CP, M577, and the brigade commander's M113. Only key representatives of the command group and current operations section are present at the TAC CP. Due to its small size it is highly mobile, and relies on frequent displacement, and comparatively low electronic signature to provide security. Battle command occurs primarily through combat net radio; this CP may also have MSE access through a mobile subscriber radio terminal (MSRT).

The TAC CP may consist of representatives from operations, IEW, air support, FS, Army airspace command and control (A2C2) section, engineers, chemical, and other areas as needed. They provide the commander with combat critical information and disseminate his decisions concerning CS and CSS to the main CP for implementation. The brigade S3 is responsible for coordinating activities at the TAC CP. See Figure 3-2 for a diagram of this facility.

Due to the mobility of the TAC CP, the primary means of communications is secure FM. MSRTs provide an alternative to FM usage. The minimal radio net capabilities required are:

- Division command or higher per attachment.
- Division HF voice net (on call).
- Division operations and intelligence (OI).
- Brigade command.
- Brigade HF voice net (on call).
- Brigade OI.
- Air Force coordination nets (FM, HF, UHF, VHF).\*
- FS nets.\*
- Net radio interface is provided by the division signal battalion.

\* Asset will be present if command group collocates with TAC CP.

## Main Command Post

The brigade main CP is the control, coordination, and communications center for combat operations. See Figures 3-3 through 3-5 for diagrams of this facility. All configurations suggested are techniques. The main CP:

- Assists the brigade and task force commanders.
- Plans future operations.
- Coordinates operations throughout the depth of the AO.
- Synchronizes CS and CSS assets as directed by the brigade commander.
- Executes planned deep attacks.
- Monitors the close fight.
- Fights rear operations.
- Keeps higher headquarters in-formed.
- Coordinates with adjacent units.
- Maintains continuous operations for extended periods.
- Assumes command and control of close operations if the TAC CP is destroyed.

The brigade staff is functionally organized to help plan and conduct deep, close, and rear operations. The components of each functional section within each CP is not fixed. Staff specialists are represented on more than one functional section and participate in the activities of those sections. Sections located at the brigade main CP are normally:



- **Current Operations Section.** This section consists of those elements necessary to provide the commander with direct control over the battle. Representation is provided as required in operations, IEW air support, FS, A2C2 section, engineers, chemical, and other areas. Representatives from this section may be required to operate the TAC CP when displaced forward. The brigade S3 is responsible for coordinating activities of the current operations and plans sections.
- **Plans Section.** This section maintains a current and projected view of the whole battle and continually updates proposals to the commander for the execution of the future battles. The personnel in this section provide expertise in operations, intelligence, IEW, FS, air defense, logistics support, engineer, chemical, psychological operations Army aviation liaison, Air Force liaison, and special staff as desired by the commander.
- **Intelligence Section.** This section includes the S2, IEWSE, and in the separate brigade, the staff weather officer. They receive, analyze, and disseminate intelligence information to the commander and all brigade elements. The S2 coordinates activities in this section.
- **FS Section.** This section coordinates FS for the brigade. It consists of the FSO, FSE, and ALO. Other representatives that work closely with the FS section are the S3-Air, ADA officer, assistant brigade engineer, and MI company commander. The brigade FSCoord controls this section. It conducts :
  - Application of the products of the targeting teams target value analysis (TVA).
  - Integrated fire planning.
  - Coordination of all FS for the brigade.
  - Coordination of EW.
  - Command and control warfare.
- **Engineer Section.** This section consists of either the engineer battalions operations cell or the assistant brigade engineer cell. This section conducts engineer coordination as it applies to current and future operations.
- **A2C2 Section.** This section conducts routine coordination, and regulates the brigade's airspace. The A2C2 section includes the aviation LO, ADO or air defense LO, and representatives from the FSE and Air Force liaison element. The brigade S3-Air coordinates the activities of this section.

## Rear Command Post

The brigade rear CP has the following functions:

- Tracks current battle.
- Sustains current deep and close operations.
- Forecasts future CSS requirements.
- Conducts detailed CSS planning.
- Serves as the entry point for units entering the brigade rear area.
- Coordinates with the FSB CP (collocate).

See [Figure 3-6](#) for a diagram of the brigade rear CP.

The operations support section is located at the rear CP. The S1, S4, S5, surgeon, chaplain, PAO, and MP elements are members of this section. The rear CP is collocated with the FSB CP in the BSA and is under the OPCON of the FSB commander for defense of the BSA. The FSB commander works with the brigade S1 and S4 to coordinate the functions in this section.

The rear CP collocated with the FSB CP is also a large communications and automation hub. Multiple CSS automation systems are employed here as are numerous gateways into different types of communications systems. The FSB relies heavily on MSE/TPN and to a lesser extent on combat net radio. The rear CP must plan for FM range extension due to its distance from the MBA.

## **SECTION III. COMMUNICATION**

### **GENERAL**

Communication is the means through which battle command is exercised. The commander and staff must understand the capabilities, limitations, and vulnerabilities of the brigade communications system. Because enemy and friendly radar, radios, and lasers operate in the same electromagnetic spectrum, commanders plan for interference. Terrain, atmospheric conditions, or electromagnetic pulse emitted by nuclear blast hinder transmissions. The commander:

- Provides for redundancy in means of communications. Prioritize for backup means at key locations.
- Ensures subordinates know what to do during interruptions in communications.
- Avoids overloading the communications systems and uses them only when absolutely necessary.
- Minimizes the use of radios to preserve them.
- Ensures proper signal security (SIGSEC) practices are followed.
- Pays particular attention to maintaining effective lateral communications.
- Considers the employment of re-transmission equipment for each operation.

### **RESPONSIBILITIES**

Responsibilities for communications are:

- Senior to subordinate.
- Supporting to supported.
- Reinforcing to reinforced.
- Passing to passed (for forward passage of lines).
- Passed to passing (for rearward passage of lines).
- Left to right.
- Rearward to forward.

All units should take prompt action to restore lost communications. These responsibilities also apply to the establishment of liaison between headquarters.

## COMMUNICATIONS SECURITY

Brigade commanders protect their command, control, communications and intelligence systems by using command and control warfare. The commander and staff execute these countermeasures through the integrated, complementary employment of OPSEC, jamming, deception, and physical destruction.

Command and control warfare consists of two separate, but closely related functions:

- Communications protection measures protect friendly communications from enemy attack and deception.
- Communications countermeasures degrade the enemy's command and control ability.

OPSEC, jamming, deception, and physical destruction are applicable to both functions, but the commander and staff determine how to best implement them based on the factors of METT-T.

The brigade's OPSEC program is managed by and is the responsibility of the S3. He analyzes the commander's concept of the operation to determine the essential elements of friendly information (EEFI) that must be protected from exploitation by enemy intelligence. The S3 and S2 develop appropriate OPSEC measures; based on their assessment of enemy intelligence collection capabilities and on the friendly indicators that may compromise the EEFI. These OPSEC measures are primarily procedural in nature and include

- SIGSEC to protect operational information by practicing (COMSEC) and electronic security techniques.
- Information security to prevent disclosure of operational information through written, verbal, or graphic communications.
- Physical security that consists of physical measures that protect personnel; prevent unauthorized access to equipment, facilities, materiel, and documents; and guard against espionage, sabotage, damage, or theft.

Jamming contributes to communications protection by defending and screening friendly communications and intelligence. Jamming is used to disrupt and deceive threat command, control, communications, and intelligence. The brigade has no organic jamming assets. In most instances, EW assets are deployed as GS to the division, with detailed planning for EW operations conducted at division. When EW assets are in GS to the division, the brigade S3 requests EW support for designated targets. EW assets respond to these requests according to the priorities established by the division commander, G2, and G3. When EW assets directly support brigade, the S3 is responsible for planning and coordinating the operations of the EW units. This includes integrating EW with fire and maneuver to ensure supporting EW resources are used effectively to support brigade and battalion operations.

The brigade's primary role in deception is to execute division and corps battlefield deception plans. Brigade units may or may not know that they are participating in a deception effort. The brigade's participation may be limited to practicing sound OPSEC measures or employing

active deceptive measures such as demonstrations, feints, ruses, or displays.

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## **SECTION IV. COMMAND POST OPERATIONS**

### **BRIGADE TACTICAL OPERATIONS CENTER OPERATIONS**

#### **Command Group**

The command group, operating under the brigade commander, operates well forward at the critical location of the battle. The primary function of the command group is to influence the battle through personal presence. Other functions include providing planning guidance, conducting ongoing close operations, and disseminating the commander's decisions.

#### **Tactical Command Post**

The TAC CP, with the S3 in charge, is the forward-most CP in the brigade. It operates as far forward as the battalion main CPs. The TAC CP consists of intelligence, operations, and FS personnel. The brigade command group goes forward from this CP to see the critical location of the battle.

#### **Main Command Post**

The main CP, under the supervision of the XO, locates in the brigade area generally forward of the division main CP, but behind the battalion main CPs. The main CP consists of staff personnel representing all facets of brigade operations. The main CP has a support area with assets that provide CSS to the brigade's command and control elements. Assets in the support area also help provide security for the main CP. The alternate CP is normally the TAC CP or a battalion CP.

#### **Rear Command Post**

The rear CP, with the S1 in charge, is collocated with the FSB CP and has administrative/logistics (A/L) personnel. The rear CP is responsible for coordinating the A/L activities of the brigade.

### **COMMAND POST OPERATION TECHNIQUES**

#### **Communications**

Commanders and staffs must understand their communications capabilities and skillfully use them. They must also understand the impact of automation systems on a digitized battlefield.

CP radio operators must understand who is on what net and how to reach net members via alternate nets or means. Contingency plans made by the SO for alternate and back-up systems must be understood by all those working in a CP. CPs should routinely prioritize nets and specify back-up equipment to support those priorities during the planning process of any

mission.

Battle staffs must maintain awareness on available communications and rapidly disseminate changes in status throughout the CP. CP users with MSE/TPN access need to understand how the MSE systems work and how to use its capabilities such as conference and precedence calls and commercial interface, effectively. Staffs should also know how to use the combat net radio interface (CNRI) function that allows FM users to call into the system and vice versa. MSRT phones as well as FM radios should be remotored into the CPs.

## Maps

CPs maintain information in the form of easily understood map graphics and charts. Status charts can be combined with situation maps (SITMAP) to give commanders friendly and enemy situation snapshots that are needed for the planning process. The information can be updated quickly. For simplicity, all map boards should be the same size and scale, and overlay mounting holes should be standard on all map boards. This allows for easy transfer of overlays from one board to another.

## COMMAND POST POSITIONING

There are several considerations in positioning CPs. CPs should be located on ground that is trafficable, even in poor weather. The area around the CP should be large enough to contain all vehicles. Other considerations for positioning CPs are:

- Ensure line of sight (LOS) communications with higher, lower, and adjacent units.
- Encourage redundancy of communications.
- Mask signals from the enemy.
- Use terrain for passive security (cover and concealment).
- Collocate with tactical units for mutual support and local security.
- Locate the CP near an existing road network out of sight from possible enemy observation. Subordinate commanders and LOs must be able to find the CP.

## COMMAND POST SECURITY

Consider the following OPSEC measures when positioning CPs:

- The brigade CPs best security comes from frequent repositioning.
- Do not erect any signs advertising CP locations. Disperse CP vehicles and ensure all vehicles and equipment are camouflaged. Maintain noise and light discipline.
- Post a security force to protect CPs. Establish security force positions as in any defensive position and maintain a 360-degree perimeter. Position the security force far enough out from CPs to prevent enemy direct fires on the CPs and equip it with antitank (AT) weapons to protect CPs from enemy armor. Also establish a reserve reaction force. Establish communications between the security force and the CPs. Always rehearse the execution of the perimeter defense.
- At brigade level, the security force consists of support area personnel and off-duty

personnel. Battalions normally rely on off-duty personnel. The command group may assist in securing a CP if they happen to be collocated. Units are rarely able to employ combat elements to help secure a CP. Often, however, CP survivability depends on concealment and mobility.

The following are some OPSEC techniques to consider:

- The enemy threat is reduced when command, control, and communications assets are positioned off major enemy mounted avenues of approach. CPs should be positioned so the enemy bypasses them.
- If antennas are remoted outside the perimeter, employ listening posts (LP) or OPs to secure them.
- Disseminate near and far recognition signals to all subordinate units and elements of the CP. These signals, challenges, and passwords are used to control access into the CP perimeter.
- In case of artillery or air attack, designate a rally point and an alternate CP location at a minimum of 500 to 1,000 meters away.

## COMMAND POST DISPLACEMENT

CPs displace as a whole or by echelon. Displacement as a whole is normally done for short movements, with communications maintained by alternate means and at minimal risk of degrading CP operations. CPs normally displace by echelon. A portion of the CP, called a jump CP, moves to the new location, sets up operations, and takes over OPCON of the battle from the main CP. The remaining portion of the CP then moves to rejoin the jump CP. The jump CP consists of the necessary vehicles, personnel, and equipment to temporarily take over CP operations while the remainder is moving.

The XO or S3 selects a general location for the new CP site. The jump CP can be accompanied by a quartering party. The quartering party may consist of a security element and personnel and equipment for quartering the remainder of the CP. The SO, who is usually part of the quartering party, ensures communications on all nets can take place from the new site. When the jump CP becomes operational, it also becomes the net control station (NCS) for the unit's nets. The remainder of the CP then moves to rejoin the jump CP. The S3 SGM supervises the breakdown of the main CP at the current location and the setup at the new location.

At brigade level, the role of the jump CP can be performed by the TAC CP if necessary. In this case, the TAC CP may or may not be positioned at the new location. Jumping in this manner can be done in both offensive and defensive operations. If it has radios, the plan section's M577 can serve as an alternative jump CP.

During offensive operations, the main CP normally moves with the main body. The main CP deploys temporarily to enhance planning for future operations.



## SECTION V. BRIGADE REHEARSALS

### GENERAL

A rehearsal is the act or process of practicing an action in preparation for the actual performance of that action. Rehearsing key combat actions allows participants to become familiar with the operation and to translate the relatively dry recitation of the tactical plan into visual impression. This visual impression assists them in orienting themselves to both their environment and to other units during the execution of the operation. Moreover, the repetition of combat tasks during the rehearsal leaves a lasting mental picture of the sequence of key actions within the operation. Rehearsals also provide a forum for subordinate units and leaders to analyze the tactical plan to ascertain its feasibility, common sense, and the adequacy of its command and control measures before it is too late. To be effectively and efficiently employed in combat, rehearsals need to become habitual in training. All units at every level should routinely train and practice a variety of rehearsal techniques. Local SOPs should identify appropriate rehearsal techniques and standards for their execution.

Time is probably the most precious resource available to commanders and units. Rehearsals take time. The time required for rehearsal varies with the complexity of the task to be rehearsed, the type of rehearsal, and the level of participation. For this reason, the emphasis on rehearsals should be at the lowest level possible, using the most thorough technique possible given the time available.

### REHEARSAL TYPES

#### Full-Dress

Full-dress rehearsals are the most effective form of rehearsals. However, they consume the most time and resources. This technique may involve up to every soldier and system taking part in the operation. If possible, the unit conducts the full-dress rehearsal under the conditions (weather, time of day, terrain) expected to be encountered during the actual operation. In defensive operations, the unit can conduct a full-dress rehearsal over the actual terrain. In an offensive operation, the unit conducts the rehearsal on any available terrain that closely matches the terrain of the zone of attack. These rehearsals are the most productive type of rehearsal, however, they are also the most resource and time-intensive.

#### Key Leader

This type of rehearsal takes less time and resources than the full-dress rehearsal because it involves only the key leaders of the unit. The unit conducts the rehearsal under conditions expected during combat operations. This type of rehearsal requires the commander to decide the level of leader involvement. Selected leaders rehearse the plan in their assigned tactical vehicles over the terrain. The terrain requirements remain the same as those for the full-dress rehearsal; only the number of participants change. Because of the reduced number of participants, the key leader rehearsal takes less time than a full-dress rehearsal. This type of rehearsal is often accomplished during defensive operations.

## **Terrain Model or Sand Table**

This technique is accomplished relatively quickly and normally involves key leaders. Since this type of rehearsal is most often used when time and resources prohibit the full-dress or key leader rehearsal, it is probably used most often. The terrain model is discussed in greater detail later in this section.

## **Sketch Map**

A sketch rehearsal takes even less time and resources than a terrain model rehearsal. Units can conduct this rehearsal almost anywhere day or night. The procedures are the same as for a terrain model rehearsal, except the commander uses a sketch in place of a model. However, sketches must be large enough for all participants to see as the commander and his staff talk each subordinate leader through a sequential, interactive, verbal execution of the operation.

## **Map**

This technique has two variations. The most common is to use a large scale (1:25,000) map and operations overlay, laid horizontally with subordinate commanders seated around it. This technique is especially suited for inclement weather or at night, since the rehearsal can take place in a tent or building. Markers (such as cardboard cutouts or micro armor) are used to track each unit as it moves and each key event as it happens. Each participant is responsible for placing and moving his own markers. Another option is to move to a location that allows a view of the AOs, with each participant following the rehearsal using his own map and operations overlay. This technique has the added advantage of terrain familiarization for the participants, but it has the disadvantage of allowing potential misinterpretations and terrain management conflicts.

## **Radio**

A radio rehearsal is less time- and resource-intensive than the map rehearsal, but is not as desirable because participants do not share information face-to-face. The brigade can conduct a radio rehearsal at any time. This technique is used extensively by FS units. To conduct a radio rehearsal, the commander and his staff transmit an interactive verbal execution of critical portions of the operation over the FM radio net. For this technique to be effective, every participant must have operable communications, a copy of the brigade OPORD, and all appropriate overlays. The unit rehearses only the essential/critical phases of the operation. Prolonged FM radio communications, even when conducted with secure radios, may offer the enemy vital intelligence and targeting information on the operation. A commander should use this method only as a last resort. In some cases radio rehearsals are essential to verify the communications system will work. If you intend to execute the FS plan digitally, use a radio rehearsal to test the system.

## **Backbrief**

A backbrief is a briefing to the higher commander in which the commander describes how he intends to accomplish his mission. This type should be used when time is severely constrained.

## Special

Although the majority of rehearsals planned and conducted by maneuver units are rehearsals of combat actions by subordinate maneuver units, rehearsals of special tasks or special functional groups are sometimes desirable.

Some examples of special rehearsals include command group, TOC shift, decontamination, R&S plan, and engineer reserve demolition target turnover. The decision concerning which special rehearsals to conduct, if any, is the commanders. Special rehearsals may be as formal or informal as necessity dictates and time allows.

Special rehearsals do not fit neatly into the type and level classifications presented above. How extensive the rehearsal should be and who should participate are dependent on time available, task complexity, and unit training. (For example, the TOC shift rehearsal is probably nothing more than a talk-through of key information and actions likely to be executed by the TOC, set against the framework of the S2s event template.) Rehearsing decontamination may be a Level III, full-scale, type A rehearsal on actual terrain when a certain unit must cross a known contaminated area. The battalion S2 may conduct a Level II, type D rehearsal of the patrolling portion of the battalion R&S plan with the scout platoon.

Special rehearsals do not replace other rehearsals. Rather, they augment, supplement, or reinforce other maneuver rehearsals. Special rehearsals can be conducted at any time during the TLPs, just like any other rehearsal.

## EXAMPLE TERRAIN MODEL REHEARSAL

### Site Selection

Brigade staffs should select rehearsal sites that facilitate the type of rehearsal being conducted. Consider the factors of METT-T to ensure the site is secure, large enough to allow the type of rehearsal selected and, when possible, allows a view of the AO.

Participants should come with maps, overlays, and binoculars, prepared to view the AO during the rehearsal. Brigade staffs plan for, and provide security from, ground and air attacks. A rally point is identified in case the rehearsal site is attacked. Parking is provided, but the dismount point and the parking area must not attract the enemy's attention. Terrain models and maps should be oriented to the north. If the AO can be viewed, key terrain is identified on the ground and on the model or map.

### Preparing a Terrain Model Rehearsal

The terrain model rehearsal takes less time and fewer resources than the full-dress rehearsal and the key leader rehearsal and can be conducted day or night. Constructed accurately, this terrain model rehearsal technique can be an excellent three-dimensional aid to assist subordinate leaders and staffs in visualizing the battle.

Preparation of terrain models requires the unit to maintain a number of materiel. Once assembled, inventory the materiel and maintain them like basic issue items (BII) for the

designated vehicle carrying the materiel. The materiel must enable the builder to accurately depict all required information. Recommended materiel for a terrain model kit include

- Tape measure (100 yards/meters long).
- Engineer tape (minimum of 500 meters).
- String to mark grid lines.
- Yarn (red, blue, green, and yellow).
- Nails and tent stakes.
- Index cards (3x5 and 5x7 laminated).
- Alcohol pens.
- Grease pencils.
- Premade military and unit symbols.
- Magnetic compass.
- Hammer.
- Chalk.
- Entrenching tool.
- Sandbags.
- Cotton balls.
- Spray paint (red, blue, green, and yellow).

Identifying and training personnel to construct terrain models are responsibilities shared by the brigade S3 plans officer and the operations SGM. The brigade S3 section trains two primary and four alternative terrain model builders at home station. The size of the terrain model or the time available may necessitate using additional personnel. The size of the terrain model can vary, from a tabletop arrangement (sandbox) to a model where the participants actually walk through a scaled-down version of the terrain. A terrain model large enough to allow the key leaders to walk over a scaled-down version of the terrain helps participants to visualize the battlefield.

The first step in creating an accurate terrain model is to prescribe the scale. This is easily accomplished by walking off several steps per kilometer, or using some other form of measurement. For example, if the brigade zone of attack is 10 kilometers by 6 kilometers, the builder of the terrain model could assign one step per kilometer and walk off the scale of the terrain model.

The second step in developing an accurate terrain model is to lay down selected grid lines based on the tactical map. With the grid lines established, the builder has a handy reference to measure the size and locations of the terrain features. This simple step increases the accuracy of the terrain model and ensures that the terrain features are the proper scale.

The terrain model should depict all required information shown on the operations overlay and brigade SITMAP to include key terrain features, enemy positions (known and suspected), and fire control measures. Place an arrow on the terrain map to depict North for orientation. Label all PLs, numbered hills, and objectives with their appropriate names. The terrain should mirror

the brigade operations and enemy overlays.

Once the terrain model is complete, position a map and operations overlay behind or at the side of the model as a point of reference. Attendance at the brigade rehearsal should include, at a minimum, the brigade commander, FSCoord, brigade XO, coordinating staff, special staff, and all battalion task force commanders with their S3s and FSOs. LOs from higher or adjacent units may attend.

## Conducting the Rehearsal

The commander leads the rehearsal; his staff runs it. The director of the rehearsal is the brigade XO. As such, he rehearses his role during the operation. He ensures tasks are accomplished by the right unit at the right time and cues the commander to upcoming decisions. The XO's script is the synchronization matrix and the DST. These are the foundations for the OPOD recorded in chronological order. A terrain model rehearsal takes a proficient brigade from one to two hours to execute to standard. The following example outlines a step-by-step process for conducting a brigade rehearsal.

**Step 1.** Start at the appointed time and conduct a formal roll call. Ensure everyone brings binoculars, maps, and necessary equipment.

**Step 2.** Ensure that the XO or the S3 orients the terrain model to the actual ground, the operations overlay, and the map. Describe and point out the overall AOs and explain the markers used on the terrain model.

**Step 3** Brief the timeline. The brigade XO should do this, or the S3 in lieu of the XO. Designate the rehearsal start time. For example, have the rehearsal begin by depicting the anticipated situation one hour before line of departure (LD). Set the time interval to be used to start and track the rehearsal. For example, specify a ten-minute interval to equate to one hour of real time during the operation.

**Step 4.** Designate a recorder. This should be the S3, or a designated representative from the operations cell. Highlight the ground rules and incorporate ground rules into the brigade SOP. They include who controls the rehearsal (brigade XO), who actually walks the terrain board, how the rehearsal will be controlled, and when special staff officers brief. Special staff officers should brief by exception when a friendly or enemy event occurs within their BOS.

**Step 5.** The brigade S3 reads the mission statement, the commander reads his commander's intent, and the S3 lays out the friendly situation as it currently exists, using the terrain model.

**Step 6.** The brigade S2 briefs the current enemy situation. He then briefs the most likely enemy COA. (The enemy situation should already be set up on the terrain model.) The S2 also briefs the status of the brigade R&S plan, for example citing any patrols still out and OP positions.

**Step 7.** The brigade S3 briefs friendly maneuver unit dispositions at the rehearsal start time, including security forces. Other brigade staff officers brief their subordinate unit positions at the start time, as well as any particular points of emphasis. For example, the chemical officer briefs mission-oriented protection posture (MOPP) level, and FSO shows range of friendly and enemy artillery.



**Step 8.** The commander gives appropriate commands. Brigade FSOs/FSCOORDs tell when they initiate fires, who is firing, from where, the ammunition, and the desired target effect. Task force commanders tell when they initiate fire IAW their FS plans. If FISTs are present, they initiate calls for fire. The brigade XO talks for any staff section not present, and ensures all actions listed on the synchronization matrix or DST are addressed at the proper time or event. Avoid re-wargaming except as absolutely necessary, to ensure subordinate unit commanders understand the plan. If the staff has developed an order that addresses contingencies, do not wargame the operation at the rehearsal site.

**Step 9.** The enemy is portrayed by the S2 section. The S2 section walks the enemy through the most likely COA (situation template), stressing reconnaissance routes, objectives, security force composition and locations, initial contact, initial fires (artillery, air, attack helicopters), probable main force objectives or kill sacks, likely chemical attack times and locations, and the commitment of reserves. The S2 must be specific by tying enemy actions to specific terrain or friendly unit actions. The walk-through should be an accurate portrayal of the event template.

**Step 10.** Terminate the first phase of the rehearsal after the desired end state (from the commander's intent) is achieved. In the attack, this is usually on the objective after consolidation. In the defense, this is usually after the decisive action, such as the commitment of the brigade reserve and the final destruction or withdrawal of the enemy.

**Step 11.** When it becomes obvious that additional coordination is required to ensure success of the operation, try to accomplish it immediately. This coordination is one of the key points of the rehearsal. Ensure it is understood by all participants and captured by the recorder, and all changes to the published OPORD are in effect. However, this is not the time to make major changes. Changes are kept to only those that are vital. As soon as possible, the brigade S3 should collect the verbal FRAGOs into a written change to the OPORD.

**Step 12.** After the initial walk-through of the base order, backstep to the situation at the initial DP. State the criteria for a decision to change the plan. Assume these criteria have been met and then refight the fight from that point forward, until the desired end state is attained. Complete any coordination to ensure understanding and requirements is met. Record any changes.

**Step 13.** Go to the next DP and ensure that the criteria have been met. Repeat step 12.

**Step 14.** Repeat step 13 until all DPs have been rehearsed.

**Step 15.** Key CS and CSS actions need to be briefed. These items should be integrated into the rehearsal at the appropriate times. Summarizing these actions at the end of the rehearsal adds to the value of the rehearsal as a coordination tool.

**Step 16.** After the rehearsal is complete, the recorder should restate any changes, coordination or clarifications directed by the commander, and estimate the time that a written FRAGO to codify the changes that follow.

**Step 17.** The commander should stress any points needing additional emphasis. He should consider reiterating his intent (purpose, method, end state), to remind all participants that the

goal is to accomplish the brigade's mission.

See FM 10I-5 for more details on rehearsals.

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# FM 71-3

## The Armored and Mechanized Infantry Brigade

### CHAPTER 4 OFFENSIVE OPERATIONS

During offensive operations the brigade commander sets the conditions for successful operations. He accomplishes this by employing all of his organic and supporting systems with precision. These systems are employed at their maximum capability to meet the conditions set by the brigade commander. The commander then maneuvers his force to decisively defeat the enemy.

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## SECTION I. FUNDAMENTALS OF OFFENSIVE OPERATIONS

### CHARACTERISTICS OF OFFENSIVE OPERATIONS

The offense is the primary means of gaining and maintaining the initiative. Through constant offensive pressure on the enemy, the brigade commander is able to force the enemy to conform to his intent and retain his own freedom of maneuver. Even in the defense the commander seeks to regain the initiative through offensive action at the earliest opportunity.

The success of the attack depends on the proper application of the four offensive characteristics of initiative:

- Surprise.
- Concentration.
- Tempo.
- Audacity.

#### Surprise

Commanders achieve surprise by attacking the enemy at a time or place and in a manner for

which he is not physically or mentally ready. The commander must anticipate the enemy commanders intent and deny the enemy the ability to collect intelligence on friendly forces. Surprise is achieved by the direction, timing, boldness, and force of the attack. Sudden and violent attacks have a devastating effect on the enemy as do attacks from unexpected directions. Surprise can also be achieved from unexpected changes in tempo.

## **Concentration**

Concentration is achieved by massing the effects of combat power. To achieve concentration on the modern battlefield, and provide security for the force, the commander uses a combination of dispersion, concentration, deception, and attack. The commander designates a main effort and allocates enough CS and CSS to accomplish his desired end state. The plan must be flexible enough to allow the commander the ability to shift the main effort to the supporting effort if the situation provides a greater opportunity for success.

## **Tempo**

Tempo is the rate of speed of military action and may be either fast or slow. Controlling and altering the tempo are essential to maintaining the initiative. While a rapid tempo is often preferred, the tempo is adjusted to ensure synchronization. Controlling and altering enemy and friendly tempo promotes surprise, keeps the enemy off balance, denies the enemy freedom of action, and contributes to the security of the attacking force.

## **Audacity**

Audacity is key to successful offensive action. This is the ability of leaders to understand and decisively and boldly operate within the commanders intent. This type of action often negates the disadvantage of numerical inferiority. The commander takes advantage of opportunities and plans for success throughout his battle space.

## **ORGANIZATION OF OFFENSIVE BATTLES**

To organize the battlefield, the commander and staff must view tactical offensive battles as operations in depth, which consist of three interrelated parts:

- Deep operations. In vital parts of the attack zone, deep operations contribute to the success of the brigades close fight. Deep operations limit the enemys options and disrupt its coordination and synchronization. Brigade deep operations are closely linked with division operations. Identification of division deep operations assists the brigade in targeting units and setting priorities for brigade deep operations.
- Close operations. These operations include reconnaissance and security actions, the main effort, and reserve actions.
- Rear operations. Rear operations are necessary to maintain offensive momentum. This may include fighting enemy airborne and airmobile units within the BSA until augmented by combat units from brigade or division and conducting the necessary activities to sustain the brigades offensive momentum.

## PLANNING FOR OFFENSIVE OPERATIONS

Successful offensive action requires the concentration and synchronization of all assets. Available ground and air maneuver forces, engineers, FA, ADA, attack helicopter, CAS, and EW assets must be concentrated at the decisive point and time to ensure tactical success. This requires that the brigade mission be analyzed and translated into specific objectives that, when secured, permit control of the area or facilitate destruction of the enemy force. The brigade plan designates:

- The deep attack.
- The main attack and main effort.
- The supporting attack.
- The reserve.
- Follow-and-support forces, if any.
- Reconnaissance and security forces.

The deep attack is focused on utilizing the brigade's available deep fires (lethal and nonlethal) to disrupt enemy functions or to delay or destroy enemy forces. The deep fight will set and maintain the conditions for success in the close fight. Inherent in deep operations planning is the detail necessary to ensure that the forward observers on the battlefield are linked (redundantly if possible) to the delivery systems. This effort contributes to the success of the deep fight.

The main attack is directed to secure the objectives that contribute the most to mission accomplishment.

The supporting attack contributes to the success of the main attack in one or more of the following ways:

- Fixing enemy forces to facilitate the main attack.
- Controlling terrain that facilitates maneuver of the main attack.
- Destroying enemy forces that hinder the main attack.
- Deceiving the enemy as to the location of the main attack.
- Preventing or delaying enemy concentration against the main attack.

Reserves are constituted to be committed at the decisive time and place to exploit success or to ensure mission accomplishment. They should not be used to reinforce failure in the hope of reversing a defeat.

A reserve provides the commander with the flexibility to deal with unforeseen contingencies. It also adds to security, although this is not its primary function. Reserves may consist of maneuver and CS units. The reserve is specifically used to:

- Exploit success by moving to attack an enemy weakness or vulnerability.
- Reinforce or maintain momentum by passing through or around units held up by enemy forces.
- Defeat enemy counterattacks.

The size of the reserve is determined by METT-T. The more vague the situation, the larger the reserve. Whenever possible, one-third or more of the available combat power is retained in reserve.

The reserve is positioned to:

- Permit rapid movement to points of probable employment.
- Weight the main attack by destroying or blocking enemy counters to the main attack.
- Provide security to unoccupied terrain within the brigade sector.
- Provide maximum protection from hostile observation and fire consistent with mission requirements.

Reserve missions should be sufficiently detailed to provide the reserve force commander a clear understanding of the brigade commanders intent and commitment criteria. Plans are made to reconstitute a reserve at the earliest opportunity after the original reserve is committed. Designating on-order reserve missions to committed units is a recommended technique.

Follow and support is an assigned mission from a higher headquarters. The follow-and-support force is not a reserve; it is a committed force that accomplishes the following tasks:

- Destroys bypassed units.
- Relieves units that have halted to contain enemy force.
- Blocks enemy reinforcements.
- Secures LOCs, EPWs, or key areas.
- Controls refugees.

Follow and assume, like follow and support, is not a form of the offense. A follow-and-assume force is also a committed force. It plans and prepares to take over and complete the mission of the force it is following. This mission is common in offensive operations. A follow-and-assume force will often follow the main attack.

Reconnaissance is the precursor to all operations. It focuses on locating the enemy and provides information on terrain. While conducting reconnaissance, the brigade relies on limited assets. This reinforces the importance of a focused R&S plan designed to confirm the adopted enemy course of action.

In the offense, as in all operations, the brigade commander secures his force. Surveillance, fires, OPSEC, and the effective use of obstacles and security forces protect the brigade.

## **SYNCHRONIZATION OF OFFENSIVE OPERATIONS**

Successful offensive operations require coordination, integration, and synchronization of all combat, CS, and CSS elements within the brigade AO. Synchronization of the BOS occurs vertically from corps and division through brigade to battalion and separate company. It also occurs horizontally among the staff sections. Major considerations for integration of the BOS in offensive operations follow.

### **Intelligence**



The brigade commanders guidance to the S2 should contain the commanders PIR. After coordinating with the S3, additional intelligence requirements may be recommended to the commander during the S2s and staffs IPB.

It is especially critical that the brigade S2 prepare an up-to-date enemy data base during the IPB process to support offensive operations and to answer the commanders PIR. The threat estimate and data base are used in identifying specific enemy vulnerabilities and weaknesses. This information assists the brigade commander in properly concentrating his available combat power.

The development of PIR and IPB is a continual process throughout the planning and execution of the offensive operation. The brigade intelligence section answers PIR using a detailed R&S and collection plans developed and coordinated by the brigade S2 and the battalion task force S2s and S3s. The brigade S2 requests additional information and collection assets from its higher headquarters when the brigade commanders PIR cannot be gathered by organic brigade assets.

During the operation, the brigade S2 provides the commander continuous updates of enemy activities and anticipated enemy COAs. His sources include reports from the ASAS, monitoring of battalion radio nets, and analysis of reported sightings.

## **Maneuver (Army Aviation)**

Elements from the divisional aviation brigade may be placed OPCON to the brigade commander to accomplish a mission or for the duration of an operation. Cavalry elements conduct reconnaissance and security operations. Assault elements conduct air assault operations and provide limited CSS functions. Attack helicopter battalions augment and extend the brigades maneuver capability and are most effective against massed enemy armor and stationary or moving artillery. They are also well-suited to conduct reconnaissance and security missions.

Aviation units operating with the brigade or in the brigade AO coordinate locations for assembly areas, forward assembly areas, and FARPs through the depth of the zone with the brigade S3. In offensive operations, these areas will be used in sequence as the main body advances.

Aviation units placed OPCON to the brigade remain the responsibility of the aviation brigade for logistics support. Efficient distribution of certain critical classes of supply may require coordination with the brigades FSB.

For a detailed discussion on ground maneuver see [Section II](#) of this chapter.

## **Fire Support**

FS can deliver a variety of munitions to support brigade operations. FS assets available to the brigade are normally one DS FA battalion and organic battalion mortars. Additional FS assets may include:

- CAS.
- NGF.

- Army aviation.
- Reinforcing and general support reinforcing battalions.
- Electronic warfare assets.

The brigade FSE is the focal point for integration of all FS for the brigade. To effectively integrate FS into the operation, the FSCOORD must understand the mission, the commanders intent, the concept of the operation, and the commanders guidance for FS. The FSCOORD must be involved in the planning process from the outset. Using the products of the IPB and TVA processes, the FSCOORD and the FSO jointly wargame COAs with the brigade command and his staff. Following the commanders decision, the FSCOORD produces the FS plans or execution matrix, an attack guidance matrix, and the HPT list. These tools fully integrate FS for the operation by focusing attack and acquisition systems on enemy systems that must be eliminated. The FSCOORD ensures FS assets are properly employed and synchronized.

Specific considerations for the employment of FS in offensive operations include:

- Weighting the main attack by assigning priorities of FS to lead elements.
- Isolating the point of attack.
- Softening enemy defenses by delivering effective preparatory fires.
- Suppressing enemy weapon systems to reduce the enemy stand-off capability.
- Suppressing and obscuring overwatching enemy forces during breach operations.
- Screening maneuver forces adjacent to enemy units.
- Suppressing bypassed enemy elements to limit their ability to disrupt friendly operations.
- Interdicting enemy counterattack forces, isolating the defending force, and preventing its reinforcement and resupply.
- Providing counterfire to reduce the enemy's ability to disrupt friendly operations and to limit the enemy's ability to rapidly shift combat power on the battlefield.
- Supporting rear operations.

## **Air Defense**

The division commander's ADA priorities determine what ADA resources the brigade will receive. Normally, the brigade receives a battery of ADA attached, OPCON, or DS.

The ADO must understand the commander's mission, intent, and concept of operations. Continued involvement by the ADO in the planning process is critical to the successful integration of ADA support with the brigade concept. The brigade S3 needs to consider terrain requirements to optimize ADA weapon systems and ground-based sensor/light and special division interim sensor coverage.

Considerations for employing ADA in the offense are:

- To concentrate ADA to achieve massive fires at decisive points.
- To integrate ADA weapon systems throughout the brigade.
- To weight the main effort with ADA protection.

- To assist the S2 during the IPB process and in analyzing air avenues of approach.
- To identify potential choke points and plan their protection.
- To ensure the supporting ADA unit is as mobile as the supported force.

The ADA battery should be task organized to support the operation from the LD to the objective. In the offense, the following are normal air defense priorities:

- Maneuver forces.
- Choke points.
- Command, control, communications, and intelligence assets.
- CSS assets.

## **Mobility and Survivability**

The brigade engineer plans and coordinates mobility, countermobility, and survivability tasks to support the offensive mission. He links engineer planning at division level and execution at battalion task force level.

The engineer develops a scheme of engineer operations, through terrain visualization, that focuses on providing mobility support throughout the depth of the attack. The combined arms breaching tenets provide the framework for planning breaching operations:

- Intelligence.
- Organization.
- Fundamentals.
- Mass.
- Synchronization.

The engineer battalion is task organized forward to support in-stride, deliberate, or assault breaching operations. The staff engineer officer (S2, S3, and ABE) work closely with the brigade S2 in developing obstacle intelligence. The data is collected and used to develop the obstacle and situation templates.

Countermobility planning in the offense includes the coordination and wargaming of FASCAM delivery assets by the brigade engineer to close potential flank avenues of approach, fix enemy forces, and close retreat routes for engaged enemy units. Upon consolidation of the objective, tactical obstacles are emplaced to support the defense against enemy counterattacks.

Survivability missions are of lower priority during offensive maneuvers; they become important upon consolidation on the objectives and must be anticipated.

The brigade engineer must receive clear guidance and priorities for engineer efforts. He is an integral part of the development of the scheme of maneuver; he coordinates with the S3, FSO, ADA officer, S2, and S4 to integrate and synchronize engineer operations.

## **Nuclear, Biological, and Chemical**

Division assets available to support brigade offensive operations include NBC decontamination,

NBC reconnaissance, and smoke. These assets will normally be platoon-size organizations. Based on the factors of METT-T, these organizations may be OPCON, attached, DS, or GS to the brigade.

## ***Decontamination***

Brigade decontamination operations during the offense focus on immediate decontamination operations. Thorough decontamination operations are designed for reconstitution operations. Operational decontamination operations are conducted at the battalion level using organic lightweight decontamination equipment. To facilitate decontamination operations, the brigade decontaminates:

- As soon as possible.
- Only when necessary.
- As far forward as possible.
- By priority.

The brigade commander identifies mission-critical assets and establishes priorities for decontamination within the brigade. Logistics support for decontamination is coordinated by the S4 and provided through normal supply channels.

## ***Reconnaissance***

All brigade units have an implied mission to conduct NBC reconnaissance, using organic detection and identification equipment. The brigade S3 establishes the NBC reconnaissance requirements and tasks based on the brigade chemical officers recommendations. The detection, marking, identification, and reporting of contaminated areas are established in SOPs according to relevant STANAGs.

## ***Smoke***

The brigade conducts smoke operations in the offense to screen friendly forces and to obscure or deceive enemy forces. Assets that are available to provide smoke include the vehicle engine exhaust smoke system, smoke pots, artillery and mortar smoke, and smoke generators. To conduct a successful smoke mission, the brigade must provide the following information to the supporting smoke unit:

- Commanders intent.
- Location of target.
- Length of mission.
- Start time.
- Visibility requirements.

## **Combat Service Support**

CSS operations in the offense are designed to maintain the momentum of the attack. The FSB commander prepares and executes a logistics plan developed to support the maneuver

brigades tactical plan.

The specific logistics needs of the maneuver brigade are identified and coordinated by the brigade S4. Based on the brigade S4s planning estimate, the FSB commander and his staff tailor a mobile CSS package to be pushed forward to support the brigade. Specific coordination for locations of ATPs, UMCPs, and MSRs outside the BSA are coordinated between the FSB S3 and brigade S4 at the rear CP and approved by the brigade S3. This coordination ensures the integration of the CSS plan and the tactical plan.

FSB logistics support must be continuous. The FSB displaces priority resupply classes by bounds to support the momentum of the offense. The movement of the FSB is coordinated among the FSB, rear CP, and main CP to ensure continuous support and to avoid impeding maneuver elements.

## **Command and Control**

The command group, augmented by other special staff as desired by the commander, is positioned to see and sense the battle. By being well forward, the commander can feel the tempo of the battle, improve communications, and influence the main effort with his presence. The command group moves much of the time and relies on the brigade TOC to maintain communications with higher and flanking units.

The TAC CP and the main CP are required to move frequently during offensive operations. The TAC CP has command and control for the main CP during these relocations. Therefore, the TAC CP may be augmented with more people from the current operations, intelligence, operations support, and FS sections out of the main CP. The signal section will leapfrog multichannel and FM retransmission systems forward to maintain communications.

The main CP will continue to perform its essential current battle coordination; however, the main CP will weight its effort toward future battle planning. This is possible because the disruption of frequent displacement causes much of the command, control, communications, and intelligence structuring for working the current battle to be pushed forward to the TAC CP and command group.

The rear CP and the FSB commander are heavily committed to coordinating and facilitating the pushing of CSS forward through the cluttered battlefield to sustain the attack. The rear CP and the FSB commander are initially concerned with sustaining forward units; providing rear area security; clearing MSRs; evacuating casualties, equipment, and EPWs; and preparing to reestablish CSS base areas forward.

## **FORMS OF MANEUVER**

The five basic forms of maneuver are envelopment, turning movement, infiltration, penetration, and frontal attack. The brigade can conduct a frontal attack, penetration, and envelopment. The brigade can participate as one element of a turning movement conducted by corps. Subordinate infantry units can conduct an infiltration as part of the brigade's larger mission.

### **Envelopment**



Envelopment is the basic form of maneuver that seeks to apply strength against weakness. Envelopment avoids the enemy's front where forces are most protected, attention is focused, and fires are most easily concentrated. The attacker fixes the defender with supporting attacks. The attacker maneuvers the main attack around or over the enemy's defenses to strike at its flanks and rear. Detailed IPB and reconnaissance of the enemy defensive position are required for successful envelopments. If there is no open flank or gaps leading to a flank, gaps can be created by fires, maneuver, or by deception operations.

Successful envelopment often depends on speed to prevent the enemy from reacting quickly and with enough force to slow the attack. Brigade envelopments usually require fixing the enemy with a battalion supporting attack. Remaining battalions then maneuver past the enemy flank to rear positions. The enemy is then forced to fight in several directions or to abandon positions.

Envelopment is the preferred form of maneuver. Striking from several directions at once or from unexpected directions forces the enemy to fight along unprepared, lightly defended, or undefended avenues of approach (see [Figure 4-1](#)). The double and the single envelopment are variations of the envelopment.

## Turning Movement

A turning movement is a large scale envelopment in which the attacking force passes over and around the enemy defense to secure objectives deep in the enemys rear. As a result, the enemys position is made untenable. The enemy is forced to "turn" and attack to his rear, or attempt a retrograde operation. Brigades participate in turning movements as part of a larger force.

## Infiltration

Infiltration is the covert movement (mounted or dismounted) of all or part of the attacking force through enemy lines to a favorable position in the enemy's rear. An armored brigade cannot expect to infiltrate all its combat elements through the enemys defense. The brigade attacks after infiltration or uses infiltration to obtain intelligence and to harass the enemy. Though it is not restricted to small units or dismounted infantry, the brigade normally employs infiltration techniques with a part of its units and performs offensive operations with the remaining units.

Dismounted infiltration is particularly effective when both threat forces are mechanized and unaccustomed to defending against dismounted troops. In these instances, infantry with supporting engineers infiltrate, followed quickly by mounted attacks. FS assists infiltration by supporting the deception plan. The commander centralizes control of FS to preclude the loss of surprise and fratricide as the infiltration is conducted.

Normally infiltration is conducted with light infantry forces assigned to a brigade for the purpose of attacking elements along the FEBA or in the security zone to facilitate friendly maneuver. Targets normally include company defenses located on terrain within a major choke point that hinders the brigades ability to maintain its momentum.



## Penetration

The penetration attempts to rupture enemy defenses on a narrow front and create both assailable flanks and access to the enemys rear. Penetration is used when enemy flanks are not assailable, when enemy defense is overextended, or when time does not permit some other form of maneuver. Penetrations typically comprise three stages: initial rupture of enemy positions, roll-up of the flanks on either side of the gap, and exploitation to secure deep objectives.

A successful penetration depends on the ability of the attacker to suppress enemy weapons, mass forces and fires to overwhelm the defender at the point of attack, and quickly pass sufficient forces through the gap to rupture the defense. Once this is accomplished, the commander has two options. He can continue forward to rupture successive defense lines and ultimately enter enemy rear areas, or he can turn forces to roll-up enemy positions from the flanks.

## Frontal Attack

The frontal attack is the least desirable form of maneuver. A frontal attack is used to strike the enemy across a wide front and over the most direct approaches. The purpose of the frontal attack is to overrun and destroy or capture a weakened enemy in position or to fix an enemy force in place to support another friendly attack elsewhere. Although the frontal attack strikes along the entire front within the zone of the attacking force, it does not require that all combat forces be employed in line or that all combat forces conduct a frontal attack. During a frontal attack, the commander seeks to create or take advantage of conditions that permit a penetration or envelopment of the enemy position. Fires are delivered across the zone of the attacking force, then shifted to the points of penetration or envelopment to facilitate rapid movement through enemy positions.

## BRIGADE FORMATIONS FOR OFFENSIVE ACTIONS

The brigade may use any of several basic formations in offensive operations. The scheme of maneuver identifies the initial attack formation that offers the best chance for success. These formations are not restrictive drills but general techniques for employment of subordinate battalion task forces.

### Brigade in Column

A column of battalion task forces may be adopted for the initial attack when terrain or enemy defenses force the brigade to attack on a narrow front (see [Figure 4-2](#)). In certain situations, the strength, composition, and location of enemy reserves may require the brigade to adopt this formation to provide the depth necessary for a sustained attack. This formation facilitates retention of the initiative and permits flexibility because the following battalion task forces are in position to move through or around the leading elements to maintain the momentum of the attack. It also provides a degree of security because the following battalions are in position to counter a threat from either flank and support the uninterrupted advance of the leading companies. However, brigades in column can concentrate only a small portion of their combat

power to the front initially and are subject to piecemeal commitment and slower deployment to the front.

Brigades require multiple routes in their zones if they are to attack effectively from columns. Passage of the brigade through a given area using this formation usually requires more time than when other formations are used.

## **Brigade Vee**

The brigade vee may be employed when great depth in the attack is not required, such as in a limited-objective attack (see [Figure 4-3](#)). It may also be used in the initial attack against a weak enemy, vulnerable to defeat by an attack on a relatively wide front. In the envelopment, this formation can be used when the brigade can envelop an assailable flank on a broad front. Lead task forces receive priority for FS.

## **Brigade on Line Without a Reserve**

Normally, the brigade commander retains some degree of flexibility in his initial attack by withholding part of his force in reserve; however, where METT-T warrants, a formation with two or more task forces abreast without a reserve may be used successfully (see [Figure 4-4](#)). Inherently dangerous, it is considered when the enemy has been routed and is incapable of a large-scale counterattack. This might occur during a corps or division exploitation or pursuit. FS is usually positioned well forward to provide maximum continuous fires as the brigade attacks. The fundamental consideration for using this formation is whether the mission dictates a rapid advance on a broad front.

After commitment to battle, the brigade can rapidly alter its formation and organization for combat to conform to the changing situation. The brigades scheme of maneuver should ensure superior combat power at the point of decision. Regardless of the initial formation for an attack, rigid adherence to formations and FS plans contradicts the basic concepts of the attack. Subordinates freely exercise initiative to exploit enemy weaknesses within the context of the operation to achieve the commanders intent.

## **Brigade Box**

The brigade box provides combat power forward over a relatively broad front. The box allows the commander to employ the rear elements in mutually supporting attacks. He can converge the combat power of leading units into one coordinated assault. The box formation also allows the commander to gain information across a broad front (see [Figure 4-5](#)). Gaps, weak points or flanks of the enemys disposition are more rapidly discovered.

## **Brigade Wedge**

The brigade wedge/diamond allows the commander to gain contact with minimal combat power. This formation also provides the commander flexibility in massing combat power once contact is made (see [Figure 4-6](#)). The wedge/ diamond provides good 360-degree security for the brigade.

## SECTION II. FORMS OF TACTICAL OFFENSE

The forms of brigade offensive operations are:

- Movement to contact.
  - Planning.
    - Security force.
    - Advance guard.
    - Flank and rear security.
    - Main body.
  - Preparation.
  - Execution.
- Attack.
  - Hasty attack.
    - Planning.
      - Advance of reconnaissance and security forces.
      - Deployment of reconnaissance and security forces.
      - Assault by the main body.
    - Preparation.
    - Execution.
  - Deliberate attack.
    - Planning.
      - Support force.
        - Mission.
        - Composition.
        - Employment
      - Maneuver force.
        - Mission.
        - Composition.
        - Employment.
      - Actions on the objective.
      - Scheme of maneuver.
    - Preparation.
    - Execution.
    - Continuation of the attack.
  - Feint.
  - Raid.



- Demonstration.
- Exploitation.
- Pursuit.

The brigade is trained and task organized to pass from one operation to another without delay. The types of operations may be conducted in sequence in a successful battle, beginning with a movement to contact to locate the enemy and ending with the destruction of the enemy through pursuit.

Each of these offensive operations will be disclosed in terms of planning, preparation, and execution.

## **MOVEMENT TO CONTACT**

When the enemy situation in the objective area is vague, a movement to contact is conducted to gain or reestablish contact with the enemy. It is used to develop the situation early to provide an advantage before decisive engagement (see [Figure 4-7](#)). The movement to contact is characterized by decentralized control and rapid commitment of forces from the march. If the brigade gains contact with the enemy, the operation ends in an attack, a defense, a withdrawal, or a bypass.

During the movement to contact, the brigade provides security by posting flank and rear security screens as appropriate. This is not necessary when the flank(s) or rear is protected by adjacent or following friendly units. Forward security is established by the use of a forward security force.

In the separate brigade, this is an ideal mission for the brigades cavalry troop. In divisional brigades, the forward security force is provided by the lead battalion task force. The size and composition of the force are based on METT-T, particularly the width of the brigade sector and the enemy situation. The forward security force:

- Conducts reconnaissance.
- Develops the situation.
- Destroys enemy reconnaissance elements.
- Secures key terrain.
- Reports and breaches obstacles (if possible).
- Prevents unnecessary or premature deployment of the main body.

The main emphasis is placed on the best use of roads and terrain. The brigade conducts aggressive reconnaissance to identify enemy locations, obstacles, and areas of possible NBC contamination and prepares to overcome obstacles and rapidly pass through defiles. Normally, movement is conducted in multiple columns. Subordinate battalions adopt the formations that enable them to accomplish their missions.

The brigade integrates FS into march columns and attack formations. Normally, this includes one FA battery immediately behind the lead task force and the remainder of the battalion behind the following task force.

Brigade air defense protection is provided by attached ADA assets and organic weapon systems. ADA occupies selected sites along the route of march and integrates into the moving column. These elements provide low-altitude air defense. See FM 44-16 for discussions of air defense procedures applicable to this offensive operation.

The decision to attack, bypass, defend, or withdraw must be made rapidly at each echelon. This decision is governed by the understanding of the division commander's intent. Commanders should not hesitate to take appropriate action in the absence of orders. While efforts to retain the initiative remain decentralized, the decision to commit the entire force or to halt the attack remains with the senior commander.

## **Planning**

The primary consideration in planning a movement to contact is the determination of actions that are anticipated during the movement. This drives the organization of the brigade for the mission. Potential threat defensive locations, OPs, EAs, and obstacles are among those items that must be identified early and incorporated into the R&S plan.

Security forces for a brigade movement to contact may consist of the advance, flank, and rear guards. When a brigade is moving as part of a division movement to contact, it can provide elements to reinforce or augment the division covering force, and provide and control either right or left flank guard and/or rear guard.

## ***Security Force***

The security force locates the enemy, develops the situation, and prevents the unnecessary or premature deployment of the main body. Its missions may include destroying enemy reconnaissance, securing key terrain, or containing enemy forces. The security force operates well forward of the main body.

When planning for the security force, the commander considers whether there has been any contact with the enemy, the enemy has broken contact, or the enemy situation is vague. The commander must move his forces toward an objective until it is reached or there is enemy contact. To maintain flexibility of maneuver after contact, he must put forward the minimum force possible. The mission best suited to execute security of a movement to contact is a guard. The main factors that determine which mission is used are the enemy situation, the terrain, and the amount of risk assumed by the commander. His risk is keyed to the amount of time the security force gives the commander to maneuver his other elements.

## ***Advance Guard***

The advance guard is normally furnished and controlled by the leading element of the main body. It is organized to fight through small concentrations of enemy forces identified by the covering force or to make sure the main body can deploy uninterrupted into attack formations. Necessary CS, such as engineers and artillery, is integrated into the advance guard. Reconnaissance assets and surveillance systems are used to assist the advance guard in detecting the enemy before actual contact.

## ***Flank and Rear Security***

Flank and rear security protect the main body from observation, direct fire, and surprise attack. These forces may be strong enough to defeat an enemy attack or to delay it long enough to allow the main body to deploy. The commander must perform a risk analysis to tailor the size of the security force.

Flank and rear security operate under the control of the brigade main body. Flank security travels on routes parallel to the route of the main body. It moves by continuous marching or by successive or alternate bounds to occupy key positions on the flanks of the main body. During the movement to contact, the flank security also maintains contact with the advance guard. Rear security follows the main body.

A rear or flank guard is similar to an advance guard in strength and composition. If the flanks or rear of the brigade are secured by adjacent or following units, the size of the brigade security force can be reduced.

## ***The Main Body***

The main body contains the bulk of the brigades combat power. It is organized and deployed to conduct a hasty attack or defense on short notice. March dispositions of the main body must permit maximum flexibility during the movement and after contact with the main enemy force.

Elements of the main body may be committed to reduce pockets of resistance contained or bypassed by the covering force, or may be left for elimination by follow-and-support units. Elements of a covering force that are assigned containing missions are relieved as rapidly as possible to rejoin the covering force and avoid dissipating their strength.

The main FS task in a movement to contact is to provide immediate responsive suppressive fires to the maneuver units in contact.

The staff engineer plans and wargames critical engineer tasks. His objective is to integrate and synchronize the tasks with other BOS. In a movement to contact, he considers the enemy situation and allocates his forces accordingly. He recommends a task organization for the advance guard and forward task forces to support in-stride breaching. The objective is to maintain the speed of the main body and not become impaired by obstacles. The brigade engineer anticipates and assigns a "be prepared" deliberate breach mission. His thought process includes the tenets of breaching (intelligence, mass, synchronization, organization, and fundamentals) as he conducts the wargaming process. See FM 90-13-1 for additional information.

Air defense protects both the forward ground forces and the main body. Some air defense assets accompany the maneuver forces, moving with them as part of the tactical formation, and others will bound with the force, providing protection from a stationary position.

Because movement to contact is characterized by increased consumption of petroleum, oils, and lubricants (POL), increased vehicular maintenance requirements, and reduced ammunition expenditure, planning should be geared toward pushing supplies forward. The speed of the



operation and the high POL consumption necessitate careful planning of CSS operations; moreover, the brigades support organization must be capable of sustaining uninterrupted delivery of supplies. As a result, the support units will often require reinforcements during movement to contact. Additional MP units may also be necessary to ensure adequate traffic control.

The brigade main CP would normally displace as far forward as possible before beginning movement to contact to support the operation with a stable command and control environment. The location depends on the depth of the movement to contact, time available, and location of the division command and control facilities. The TAC CP and command group would operate forward with the main body to facilitate decision making and transition to other offensive tactical missions (see [Figure 4-8](#) and [Figure 4-9](#)).

## Preparation

When preparing for movement to contact, the primary concern of the commander is that his subordinate commanders understand their individual missions within the context of his intent. This is partially accomplished after the order is issued by an immediate backbrief. Once the battalion task force commanders have an opportunity to conduct their own TLPs, they may be recalled to the brigade commander for a rehearsal and update.

The commander must think through the entire operation before rehearsal. He must identify possible choke points and examine the enemys probable COAs.

When conducting the rehearsal, he must ensure the brigade players understand their individual and team responsibilities. Options and contingency planning are essential during rehearsal so virtually every eventuality is addressed. He must point out where formations may have to change, or where speed of the operation is adjusted as a result of the terrain or suspected enemy. Integration and coordination between combat, CS, and CSS elements will go a long way toward lessening the support problems after crossing the LD.

Each commander rehearses what to do when making contact with the enemy, not only for his benefit but so the other commanders understand their responsibilities to the element in contact. The S2 should role-play the enemy commander.

The most critical decision the brigade commander must make is the commitment of his reserve force. It is paramount that he be provided timely and accurate intelligence on the situation so the reserve is effectively committed. Even after the reserve is committed to the fight, the commander should look for forces to create a new reserve.

As with maneuver, it is important to rehearse the FS plan. The brigade commander reviews the conduct of battery movement and the brigade FS plan with his FSCOORD, and ensures subordinate maneuver commanders understand their role in executing the plan.

The engineer commander and staff ensure task organization linkup is complete, monitor precombat checks and inspections, and supervise rehearsals. The engineer battalion commander is the key player at the brigade rehearsal. He talks through critical engineer missions, tasks, actions, and decisions as the battle is played out.

CSS rehearsal is very important in a movement to contact due to the extended lines and speed of the operation. Planned LRPs should be checked during rehearsal as should any scheduled refueling operations. Route security and convoy security are especially important as there are no established enemy lines. Moreover, the possibility of bypassing undetected enemy forces is all too real and could become a severe threat to CSS operations. The echeloning of trains is an effective technique for moving CSS assets without creating overwhelming space control problems.

## **Execution**

The brigade moves as directed by the brigade commander. The mission is to regain contact with the enemy. The enemy may leave nuisance minefields; or he may leave obstacles guarded by small stay-behind parties to slow the brigades movement. It must be assumed the enemy will overwatch choke points and defiles.

The commander must be aware of these delaying actions, and give bypass criteria so the speed of the main body is not impaired. Unless an enemy stay-behind force provides a significant threat to one of the formations, it is fixed, bypassed, and handed over to a follow-on support force.

Forward and flank security forces execute their mission in terms of both the commanders intent and the R&S plan. The movement of the brigade can be controlled using PLs and checkpoints on easily identifiable terrain. Unit orientation is first directed in zone with respect to the formation itself, and second toward those areas suspected of posing a threat to the brigade.

Movement to contact ends with the occupation of an objective or limit of advance without enemy contact, or when contact is made and the enemy cannot be defeated or bypassed. This occurs in a series of engagements and/or hasty attacks. In an encounter with a moving force, action should take place without hesitation. Battalions use fire and movement to fix the enemy. The decision to attack, bypass, or defend must be made rapidly at each echelon. The decision must be governed by an understanding of the division commanders intent.

In the execution of the movement to contact, the FS plan should continuously be updated to reflect the availability of more detailed information provided by the maneuver units and the S2s refinement of the situation template. This includes changes to the maneuver plan made by the commander in response to enemy actions.

During movement, engineer assets must be protected by the combat maneuver elements. Only after an obstacle has been identified and no bypass route found, will the engineers move forward to breach. However, during the reconnaissance for bypass routes, an engineer element may move forward to conduct initial reconnaissance and assessment of the obstacle to confirm or deny whether planned engineer support will accomplish the mission. On order of the maneuver commander, engineer assets found in the follow-on forces have the additional responsibility to reduce obstacles bypassed by the advance guard, or to breach obstacles encountered by the flank guards.

As the air defense elements maneuver with the brigade, the air defense plan must be continuously refined to reflect any changes in the enemy situation.

CSS elements follow the main body and are protected by the rear guard. As forces require refueling and resupply, the support elements move forward in logistic packages (LOGPAC). UMCPs are established as required.

The most critical control measures are objectives, PLs, checkpoints, axes of advance, and boundaries. Intermediate objectives may be used to coordinate the essential movements of attacking forces, but their excessive use can reduce the momentum of the attack. On-order objectives are used to orient following forces and reserves quickly and to increase the flexibility of tactical maneuver throughout the force.

Attacking units may bypass local obstacles and stubborn pockets of resistance that do not threaten overall success according to the higher commanders intent. Bypassed enemy forces then become the responsibility of the higher commander. Also, the directing maneuver headquarters needs to retain some ability to reinforce fires and redirect maneuver with minimum oral instructions. The most effective means of accomplishing this goal is with an operation overlay that reflects the higher commanders intent and scheme of maneuver (see [Figure 4-10](#)). The overlay gives each command echelon flexibility to mass fires and modify maneuver plans as the situation develops.

## **ATTACK**

### **Hasty Attack**

A hasty attack is conducted to gain or maintain the initiative. Before mounting a hasty attack, the commander must develop the situation, determine enemy strength, and rapidly mass firepower against the enemy. A hasty attack is usually conducted following a movement to contact. To maintain momentum, it is conducted with the resources immediately available.

### ***Planning***

The commander has a vague picture of where and how the enemy defends, based on input from the S2 as well as his own experience. Much of the planning for a movement to contact is based on the desired outcome on contact. If the situation is vague and the enemy is a considerable distance away, he may choose to lead with a large number of reconnaissance elements spread over a wide area to develop the situation and retain the main body in a tighter, more responsive formation.

Regardless of the formation selected for reconnaissance and security elements, the hasty attack normally occurs in the following sequence. Therefore, the drills and SOP tasks that are associated with each step should be reevaluated within the context of the current situation.

- **Advance of Reconnaissance and Security Forces**

In planning the advance of reconnaissance and security elements, the commander should identify the direction of movement, possible danger areas, objectives to be occupied, and bypass criteria. This planning is the same process used in the movement to contact planning.

- **Deployment of Reconnaissance and Security Forces**



Once contact has been made with the enemy, the security force attempts to develop the situation. In planning, the major consideration for deployment is task organization. Reconnaissance elements generally are not heavy enough to deploy against an enemy and must be augmented by armored forces. The commander ensures that the organization of the security force is a mix of armored and reconnaissance elements.

Based on the commander's guidance, the reconnaissance force will move to the flanks or continue its reconnaissance. In either case this force maintains contact with the enemy until the security force arrives.

Again, the organization must be based on METT-T considerations. One of the key points the commander should remember is that the enemy may want to slow the main body by making it deploy. The advance guard must have enough firepower to destroy smaller size elements. If it does not, the enemy will have accomplished its mission. If the enemy encountered is too strong for the advance guard, it must be prepared to become the support force for an assault by the main body.

### ● **Assault by the Main Body**

As the security force suppresses the enemy with direct and indirect fires, the main body changes from a movement to contact formation to an assault formation. The size of the actual assault force is determined by the intelligence generated by the advance guard. The planning for this assault is generally limited to templated or suspected enemy defensive locations. In this regard, the identification of areas such as checkpoints corresponding to these and other easily identifiable locations allows the maneuver units to execute quickly from FRAGOs. However, not all maneuver units will be committed to the assault. The commander maintains security throughout the operation; therefore, he identifies which units maintain security if the main body is deployed.

### ***Preparation***

The commander prepares for the brigade hasty attack while rehearsing the movement to contact. Specifically, he must run the brigade staff and commanders through a series of enemy COAs. This exercises command and staff drills and SOPs. There are several enemy actions to consider during rehearsals:

- The advance guard makes contact with a small force. Options may include fix and bypass so as not to sacrifice speed, or conduct a hasty attack.
- The advance guard makes contact with a large force. Options include possible hasty attack, suppressing for the main body attack, or hasty attack while the main body bypasses.
- A flank security force makes contact with a small force. The flank security force can fix and bypass or conduct a hasty attack. What does the rest of the main body do in the meantime?
- A flank security force makes contact with a large force. The flank security force suppresses the enemy, while elements of the main body conduct the attack. What does the remainder of the formation do during the attack?

The commander reinforces his intent throughout the rehearsal, and identifies any possible difficulties in execution. The S2 ensures the enemy COA is accurately portrayed.

During the rehearsal, the commander verifies that his control measures are adequate for the hasty attack. More often than not, the hasty attack will be a FRAGO. Therefore, the commander ensures "on order" graphics are adequate to control the hasty attack. The commander ensures control measures sufficiently control movement and direct and indirect fires.

## ***Execution***

The commander has a particularly difficult role during the hasty attack. He allows his subordinates to develop the situation and make decisions quickly, with very little planning. It is paramount, therefore, that subordinate commanders understand the brigade commander's intent; likewise, the brigade commander must trust the judgment of his battalion commanders. Once the brigade commander decides to conduct a hasty attack, he puts his full weight into assuring that each subordinate commander gets the necessary support. Any CAS sorties that may be allocated to the brigade should be synchronized to augment the fires of the assault force. Each element must move quickly as in a drill. Commanders talk laterally and vertically, making suggestions and maneuvering as a team. The brigade operates as a close-knit unit, where each knows his role and that of his teammate. The commander must know, through continuous information flow from subordinate commanders, what to expect of each element and what he can give in return.

The element that makes initial contact has the responsibility to develop and make a quick assessment of the situation. In particular, the commander of the unit in contact must quickly decide whether to fix and bypass, attack, or become the support force for an attack by the main body. Also, his report to higher headquarters drives the decisions of the higher commander. Assuming the situation is such that the advance guard must lay down a base of fire for a hasty attack by the main body, thus becoming the support force, the advance guard commander must move to a position of advantage over the enemy force. Specifically, the support force attempts to fix the enemy to deny their freedom of movement. While this occurs, the commander of the support force constantly updates the higher commander about the situation and attempts to identify the most effective direction of attack for the assault force. The brigade commander quickly gives instructions for the CS elements to support the brigade designated main effort. For example, the artillery positions forward to range to the identified enemy, probable adjoining enemy positions, and enemy counterattack avenues of approach.

The force designated to conduct the assault must rapidly change formation from whatever it was for the movement to contact to the appropriate attack formation. The assault force commander communicates with the support force commander to coordinate direct and indirect fires as the assault force conducts their movement to the enemy position and during the final assault of the enemy position. In particular, the assault force commander isolates the position quickly from other possible enemy positions and suppresses the enemy's ability to observe or engage the assault force. This is accomplished by a combination of direct and indirect fire. In the meantime, reconnaissance elements must screen to any exposed flank(s) of the assault force, ensuring security.

## **Deliberate Attack**

A deliberate attack is a fully synchronized operation. Due to the detailed planning and synchronization required, a brigade may conduct a deliberate attack from a defensive posture. If in an offensive posture, a brigade may transition to deliberate attack immediately after entering an area of operations. In either case, the enemy situation is known and the brigade commander has enough combat power to defeat the enemy. This is accomplished through a detailed reconnaissance effort that identifies the enemys weakness. Once identified, the brigades combat power is focused on this weakness and is exploited to the extent that leads to the enemys defeat, destruction, or neutralization. Brigade commanders plan deliberate attacks when directed or as the opportunity warrants and execute them to support the overall purpose of operations.

### ***Planning***

The factors of METT-T influence each situation in which a deliberate attack must be made and prevent development of a standard organization for combat. While the commanders estimate process must be conducted for each deliberate attack, general rules can be stated. The brigade commander organizes forces to fix and to maneuver against the enemy. Engineers are task organized to the force penetrating the enemys defensive positions. An intelligence collection effort is conducted to locate enemy reserves and second-echelon forces.

FS planning is characterized by the full integration of intelligence-gathering sources into the targeting process. The brigade DS FA battalion uses the DIVARTY, intelligence officer, and brigade controlled and supporting intelligence sources to locate HPTs. Fires are planned for HPTs. FS systems are positioned well forward and in depth to provide continuous support throughout the attack. Displacement of FS systems is executed to maintain continuous FS.

Brigades conduct deliberate attacks through coordinated battalion task force attacks consisting of fire and maneuver. A battalion task force participates in a brigade deliberate attack as a main effort or as a supporting effort. Key to the main attack achieving its purpose, a battalion task force is designated as the main effort. The brigade commander designates the supporting effort, ensuring the main effort accomplishes its mission through supporting attacks, a follow-and-support role, or follow-and-assume-the-main-effort role.

#### ● **Supporting Effort**

The mission, composition, and employment of the supporting effort are explained in the following paragraphs.

##### ○ **Mission**

The supporting effort sets and maintains the conditions necessary for the success of the main effort. A battalion task force, as the supporting effort, fixes enemy forces by attacking objectives that support the main efforts objective. The supporting effort can also suppress large forces that it cannot destroy, allowing the main effort to have maneuver options. These may be forces that the main effort is attacking directly or they may be forces that could influence the successful attack of the main effort. Tasks for supporting forces are offensive or defensive in nature. They include fix, attrit, suppress, or delay, and also may include seize, secure, or destroy.



- **Composition**

Supporting efforts at brigade level normally consist of battalion task forces, or in some situations, a portion of a task force that is working directly for the brigade. They are still allocated resources for successful mission accomplishment, but supporting efforts are only allocated enough to accomplish their missions so that the main focus will be the main effort. In some cases, direct or indirect fire assets may be increased to set the conditions for the main effort.

- **Employment**

Depending on the missions given, supporting efforts attack as any other force. The difference is that the supporting effort must plan with the main effort in mind. (How will direct and indirect fires assist the main effort? How will maneuvering of forces aid the main effort and not mask its forces?) Additionally, the supporting effort must also be prepared to engage targets of opportunity within the commanders intent. Similarly, the supporting effort must be prepared to move to other positions from which it can continue to aid the main effort.

- **Main Effort**

The mission, composition, and employment of the main effort are discussed in the following paragraphs.

- **Mission**

The main effort closes with the enemy to defeat, destroy, or neutralize him. In most cases, tasks are purely offensive in nature, e.g., seize, destroy, secure, or neutralize.

- **Composition**

The maximum possible strength should be placed in the main effort. When possible, it should be a combined arms unit of tanks, mechanized infantry, engineer, and aviation. The main effort should be supported to the fullest extent possible with artillery and CS/CSS assets.

- **Employment**

The main effort closes with the enemy as quickly and directly as possible to exploit the effects of the supporting efforts. It is usually committed so that it has mass, and when possible, it seeks to attack at an identified weak point in the enemys defense. Once the main effort is committed, it should proceed with all the speed and violence at its command. The advance should be timed so the elements of the main effort arrive on the objective simultaneously. Tanks and mechanized infantry can then provide mutual support. As the objective is reached and overrun, the supporting effort shifts its attention to the flanks and rear of the enemys defense.

- **Actions on the Objective**

As the assault force secures the objective, the brigade begins to focus on the enemy elements that could counterattack. The brigade commander will reposition battalion task forces on the objective either to defend against an enemy attack or to prepare for future operations. The brigade continues to synchronize the consolidation on the objective. Based on the end state combat power of each battalion task force, the commander may adjust task organization.

## ● Scheme of Maneuver

This is the detailed plan for the placement and movement of the main attack into advantageous positions on the objective with respect to the enemy. In developing the scheme of maneuver, consideration is given to its possible effects on future operations.

### ***Preparation***

In preparation for the deliberate attack, the commander rehearses the maneuver and synchronization of the brigades assets. Specifically, the commander ensures that his commanders understand both the maneuver plan and his intent, so that if they must deviate from the maneuver plan it is within the context of his intent.

The brigade commander first ensures that the supporting efforts understand their role within the maneuver plan. He must be prepared to maneuver supporting efforts so they maintain continuous and effective pressure on the enemy force. He must then determine where they will shift their focus once the main effort closes on its objective. (Where will they shift their direct and indirect fires? What criteria should be developed that allows them to join the main attack or assume the main effort?)

Likewise, the main effort must demonstrate the best use of terrain to support his approach to the objective. He must be prepared to conduct hasty breaches of obstacles and change his maneuver formation to suit the terrain and enemy situation. Finally, and most importantly, he must rehearse the final assault on the objective. Can he effectively suppress the objective or will it require help from a supporting effort as he closes? How has the objective been divided into battalion/company objectives? What happens if the assault force is counterattacked just as they are about to assault? How can this be prevented? Where is the limit of advance? How are the task forces using their scouts during the assault? What actions are being taken to deny effective enemy fires from adjacent and depth positions? These are only a sampling of the questions that must be answered as the commander conducts the rehearsal.

### ***Execution***

An indirect-fire preparation may be delivered immediately before the attack (see [Figure 4-11](#)). The preparation is coordinated with the movement of attacking units, depending on the amount of surprise desired or necessary to soften the point of attack. The preparation must have a specific purpose. Criteria must be developed prior to execution. This criteria may include:

- All targets must be confirmed.
- The targets justify the loss of surprise and expenditure of ammunition.
- The targets justify the risk to the DS artillery battalion.

Desired effects on the target are established.

The attack plan is vigorously executed, and all favorable developments are exploited. If the attack lags in one portion of the zone, the main effort is shifted to another portion offering a greater opportunity for success.

The progress of the attack is not delayed to preserve the alignment of units or to adhere to the original plan of attack. Follow-and-support units reduce isolated enemy resistance as necessary.

The attack may be a single, rapid advance and assault until the brigade objective is secured, neutralized, destroyed, or overrun, or it may be a series of rapid advances and assaults to obtain the same results. As enemy resistance is encountered, the attacking echelons converge, following close behind their supporting fires, until they are within assaulting distance of the hostile position. After the assault, attacking units disperse as rapidly as possible (to preclude forming lucrative targets), continue the attack, or prepare for other operations.

The reserve is kept ready for immediate employment. The reserve moves within the overall formation of the brigade and is positioned to permit rapid movement to the point of probable employment and to provide security by its presence. When conditions dictate its use, the reserve is committed without hesitation. With the compression of TDIS factors inherent in the mobility of the brigade, teams of the reserve can be assigned a specific short-term mission and the reserve quickly reconstituted.

### ***Continuation of the Attack***

When the brigade objective is secured, reorganization is accomplished rapidly, and all means are used to continue the attack (if so ordered). Maximum use of supporting fires is made during this critical period. Minimum forces normally retain control of objectives and remaining units disperse to defend themselves and the objective, prepare to continue the attack, and block enemy avenues of approach, if required. Ground mobile or air assault units maintain contact with the enemy, keep the enemy off balance, and obtain information.

Continuing the attack or exploitation must be an integral part of the attack plan. The commander's intent includes the disposition of the force as part of his end state. Immediate reorganization of the force is necessary to maintain momentum and prepare for the next phase.

Continuing the attack frequently depends on the ability to resupply attacking forces. Large quantities of ammunition, POL, and equipment expended during the attack must be replenished. Provisions for this logistic support are an integral part of the attack plan. During continuous day and night operations, leading elements of the brigade are rotated to provide time for rearm and refit operations.

The commander must anticipate halts and prepare orders to include the time or circumstances of the halt, missions and locations of subordinate units, and command and control measures. To prevent congestion, some units may be diverted into defensive positions before the halt of the entire brigade.

### **Feint**

A feint is a limited objective attack; it is a show of force intended to deceive the enemy and draw attention and (if possible) combat power away from a main attack. Feints must be of sufficient strength and composition to cause the desired enemy reaction. Feints must appear real; therefore, some contact with the enemy is required. The feint is most effective when it

reinforces the enemys expectations, when it appears as a definite threat to the enemy, when the enemy has a large reserve that has been consistently committed early, or when there are several feasible COAs open to the attacker. Some of the desired reactions are to force the enemy into improper employment of its reserves, attract enemy supporting fires away from the main attack, force the enemy to reveal defensive fires, or accustom the enemy to shallow attacks in order to gain surprise with a deep main attack. Normally, the brigade executes a feint as part of a corps or division attack plan. Planning for a feint follows the same sequence as any other offensive operation.

## **Raid**

A raid is usually a small-scale offensive tactical operation. It is based on detailed intelligence, involves swift movement into hostile territory, and ends with a planned withdrawal. Typical raiding missions are

- Capture prisoners, installations, or enemy materiel.
- Destroy enemy materiel or installations.
- Obtain specific information of a hostile unit such as its location, disposition, strength, or operating scheme.
- Deceive or harass enemy forces.
- Liberate friendly, captured personnel.

The raid operation is appropriate to the brigade because of its capabilities for shock, speed, mobility, and firepower. Normally, raids are so short in time and distance that only a limited amount of supplies can be carried on the combat vehicles. Maintenance support is confined to the crews ability to make minor repairs.

FS systems are positioned during a raid to support the attacking force throughout the operation. HPTs are attacked to provide the maximum shock effect on the enemys force. Interdiction fires, counterfires, and FASCAM are delivered to reduce the enemys ability to react to the raid.

After reaching the objective and accomplishing the mission, the raiding force can anticipate vigorous enemy reaction in the area through which they have passed. For this reason, the withdrawal of the raiding force is usually over alternate routes. Brigade forces should avoid main LOCs and should consider using routes for attack and withdrawal that are not usually considered feasible for mechanized movement.

Once the brigade raid objective has been achieved, no time is wasted in returning to friendly territory. The longer the withdrawal is delayed, the greater the chance the enemy has of defeating the raiding force. In this phase of the raid, the operation corresponds to techniques used during linkup.

When Army aviation assault and attack helicopter assets are available, an aerial raid may be conducted with dismounted infantry to quickly move behind enemy lines, perform the required mission, and return.

## **Demonstration**

A demonstration is an attack or show of force in an area where a decision is not being sought. It is made with the intention of deceiving the enemy; however, no contact with enemy forces is made. Demonstration forces use fires, movement of maneuver forces, smoke, EW assets, and communication equipment to support the deception plan to include firing false artillery preparations and delivering fires comparable to a thrust forward in a deliberate attack.

## EXPLOITATION

Exploitation is an offensive operation that follows a successful attack to take advantage of weakened or collapsed enemy defenses. Its purpose is to prevent reconstitution of enemy defenses, prevent enemy withdrawal, secure deep objectives, and destroy command and control facilities and enemy forces. During the exploitation, the brigade advances on a wide front (if the terrain and road net permit), retaining only those reserves necessary to ensure flexibility, momentum, and security. The exploitation is initiated when an enemy force is having recognizable difficulty in maintaining its position. Although local exploitations may appear insignificant, their cumulative effects can be decisive.

Depending on the situation and its task organization, the brigade can exploit its own success; it can be used as an exploiting force for a higher echelon; or it can follow and support another exploiting force. The heavy brigades inherent mobility, firepower, and shock effect make it an ideal exploiting force. Exploiting forces can have the mission of securing objectives deep into the enemys rear, cutting LOCs, surrounding and destroying enemy forces, denying escape routes to an encircled force, and destroying enemy reserves.

Preparation for the exploitation entails planning, issuing WOs, grouping of exploiting forces, planning for CSS, and establishing communications. The commander must be ready at all times to use every opportunity afforded by the enemy for exploitation. Exploitation opportunities are indicated by an increase in prisoners captured; an increase in abandoned materiel; and the overrunning of artillery, command facilities, signal installations, and supply dumps. The transition from the deliberate attack to the exploitation may be so gradual that it is hardly distinguishable, or it may be abrupt. The abrupt transition occurs most frequently when nuclear or chemical munitions are used. After transition to the exploitation, every effort is made to continue the advance without halting, bypass enemy resistance when possible, and use available FS to the maximum when appropriate targets are presented. FS target acquisition systems and observers are positioned well forward with lead elements.

Once the exploitation begins, it is carried out to the final objective. The enemy should be given no relief from offensive pressure. Enemy troops encountered are not engaged unless they are a threat to the brigade or cannot be bypassed. The decision to bypass or engage these enemy forces rests with the next higher commander. Normally, freedom of action is delegated to commanders in the exploitation. The leading elements of the brigade habitually attack from march column to reduce roadblocks and small pockets of resistance and to perform the reconnaissance necessary to develop the situation.

Follow-and-support units clear the bypassed areas and expand the zone of exploitation. Follow-and-support units are assigned missions to assist exploiting forces by relieving them of tasks that would slow their advance (such as preventing the enemy from closing the gap in a



penetration and securing key terrain gained during a penetration or envelopment).

Follow-and-support forces are allocated FS as the situation dictates. As the exploiting brigade advances farther into the enemys rear areas, the follow-and-support units secure lines of communication and supply, support the exploiting elements of the brigade, destroy pockets of bypassed enemy, and expand the area of exploitation from the brigade axis.

Follow-and-support units relieve brigade elements blocking or containing enemy pockets, or protecting areas or installations, thereby enabling these elements to rejoin the exploiting force. Liaison must be maintained between lead units and follow-and-support units to facilitate coordination.

Decentralized execution is characteristic of the exploitation; however, the commander maintains enough control to prevent overextension of the command. Minimum control measures are used. CSS operations are normally centralized.

Reconnaissance systems maintain contact with enemy movements and keep the commander advised of enemy activities. CAS aircraft, deep FA fires, and attack helicopters attack moving enemy reserves, withdrawing enemy columns, and enemy constrictions at choke points. CAS, FA, and attack helicopters may also be used against enemy forces that threaten the flanks of the exploiting force.

Petroleum consumption rates are high; therefore, provision for rapid resupply is essential. Since forward elements may be operating to the rear of bypassed enemy forces, security of ground supply columns must be considered. Aerial resupply may be necessary. Exploiting forces take advantage of captured supplies whenever possible.

In the exploitation, the attacker seeks to follow up the gains of a successful penetration. The attacker drives deep into the enemys rear to destroy his means to reconstitute an organized defense or to initiate an orderly withdrawal.

## **PURSUIT**

The pursuit normally follows a successful exploitation. The primary function of pursuit is to complete the destruction of the enemy force. As a successful exploitation develops and the enemy begins to lose the ability to influence the situation, the brigade may be ordered to execute the pursuit. Unlike exploitation, in which the attacking force avoids enemy units in order to destroy their support system, in the pursuit the brigade may point its advance toward a physical objective; however, the mission is the destruction of the enemys main force.

Friendly forces in the exploitation are alert for indicators of an enemy collapse that would permit a pursuit operation. There are several indicators of a weakening enemy:

- Continued advance without strong enemy reaction.
- An increased number of captured prisoners, abandoned weapons, and unburied dead.
- A lessening of hostile artillery fire.
- A lack of enemy countermeasures.

The pursuit is ordered when the enemy can no longer maintain its position and tries to escape.



The commander exerts unrelenting pressure to keep the enemy from reorganizing and preparing its defenses. The brigade may conduct a pursuit operation as part of a corps or division pursuit, functioning as either the direct-pressure or encircling force.

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## **SECTION III. BRIGADE AS A COVERING FORCE**

A covering force is a tactically self-contained security force that operates a considerable distance to the front or rear of a moving or stationary force. Its mission is to develop the situation early; defeat hostile forces (if possible); and deceive, delay, and disorganize enemy forces until the main force can cope with the situation.

The brigade may participate in a covering force mission as part of a division that is in turn the covering force for a corps, or as a complete covering force for a division or corps. Because the brigade as a covering force is operating on a broad front, a well-prepared, coordinated plan is required. The plan must reflect centralized, coordinated planning and decentralized execution. Control measures governing the rate and direction of movement are specified. The rate of movement is controlled by successive march objectives, checkpoints, and PLs. The axis of advance or withdrawal is controlled by establishing boundaries between battalion task forces. Army aircraft may be used to provide auxiliary communication, liaison, and other controls between commands.

As a covering force, the brigade will normally operate forward and without the support of the divisions main body. The brigade may have up to three or more task forces abreast operating in task force zones keyed on high-speed routes. Tank-heavy battalion task forces usually lead the advance. Engineers are kept well forward with the task forces. When the brigade conducts a covering force operation, supporting CS and CSS assets are attached to preserve unity of command. Small tank-heavy reserves may be maintained at both battalion and brigade level to influence local actions.

Covering force actions are characterized by speed and aggressiveness (especially in reconnaissance) by developing situations rapidly with strength, by unhesitating commitment of reserves, and by keeping the enemy off balance. The brigade concentrates its attention against enemy forces that are of sufficient size to threaten the main force. Minor resistance is bypassed. Every action is directed toward ensuring the uninterrupted advance of the main body.

Tailored, mobile, high-demand CSS is moved forward with the brigade. Limited Classes III and V supplies and medical triage and evacuation assets move with and are provided march security by the reserve battalion of the brigade.

### **PLANNING**

The commander plans for the operation by task organizing his forces to suit the mission. In this example, he commands an element consisting of the divisional cavalry squadron, an armored and mechanized infantry battalion, and a DS artillery battalion. Knowing that the cavalry squadron operates in zones, essentially with a ground and an air troop working together in

each one, the commander designates a task force to follow and support in each zone. He task organizes the battalions so that each task force is able to respond to a variety of threats, generally 2 x armor and 2 x mechanized, with the mechanized task force retaining the ITV company (in an M113-equipped mechanized battalion). The artillery trails, yet remains within the body of the formation.

Based on the commander's bypass criteria, the mission of the covering force is to identify and destroy those enemy elements that can influence the divisions maneuver. In effect, the cavalry troops and the battalion task forces become "hunter/killer" teams. However, some enemy forward detachment positions may be too strong for the covering force battalions. When this occurs, the covering force commander must attempt to find a bypass route that cannot be observed or influenced by a forward detachment. He should also fix the position with indirect fire and, if available, Army aviation or CAS assets.

## **PREPARATION**

The brigade commander conducts a rehearsal following the issuance of the OPORD to confirm that each subordinate commander understands his mission within the context of the intent. In particular, the commander reviews actions on contact and the bypass criteria. Commanders must overcome the temptation to focus on each enemy element that attempts to engage the force, but at the same time, they must clear the axis of enemy elements that may significantly impair the movement of the main body. It is the responsibility of the brigade commander to exercise this decision making during the rehearsal and to ensure that the subordinate commanders operate as a team.

The commander observes the rehearsal and provides comments when appropriate. Generally, however, he allows his subordinate commanders to demonstrate their knowledge of the plan and their decision making within the context of the commander's guidance. For his part, the commander practices his use of the DST in an effort to anticipate likely enemy actions. Once he has made a decision, he then rehearses synchronizing his resources to achieve the greatest effect. The commander must resist making changes. Normally, there will not be enough time to coordinate a change in the operation throughout the entire force. Subordinate commanders will already have prepared (and probably issued) their OPORDs. At this point in the process, changes will only increase the confusion that always exists in combat. The commander must continually weigh the amount of combat power he is willing to commit to an area against his overall mission to guard the division main body. Moreover, he must identify the conditions under which he would no longer be able to effectively operate as the covering force, such as increasing strength of the enemy defense, his own attrition, or a combination of the two. The impact of having a covering force become ineffective prior to reaching the enemys main defensive belt is that the attacking force would have to commit prematurely, arriving at the objective area at less than the desired combat strength. Ultimately, this could be the difference between success and failure.

## **EXECUTION**

As the brigade advances along the division axis of advance, enemy units are identified by the divisional cavalry squadron. This information is passed to the battalion task forces, which in

turn maneuver against the enemy position. In execution, the cavalry troop hands over the enemy to the scout platoon of the following task force. Elements of the air troop may continue to observe the enemy until the arrival of the task force. The cavalry and scout platoons should have gathered enough information about the enemy position so that, upon arrival, the task force can be directed into the assault. This hasty attack should be supported with an appropriate level of CS to ensure success; otherwise, the operation could develop into a deliberate attack and consequently slow the covering force operation significantly.

Weak enemy elements are handed over to the advance guard battalions or brigade main body for destruction. Conversely, those enemy positions that the covering force clearly cannot destroy are maintained under observation by reconnaissance elements; a bypass route is selected around the area, out of direct fire and observation. All information concerning the enemy position is relayed to the division commander, who must then decide to continue to bypass or destroy the position.

As the covering force nears the enemy force, the cavalry squadron probes to confirm possible weaknesses in the enemys array. The task forces adopt a hasty defense that maintains the shoulders of the division penetration and also supports the attack of the main body elements. The cavalry screens farther forward of the hasty defending battalions to provide flank security, or it may continue to infiltrate depending on the division commander's concept of the operation. At this point, the covering force operation ceases, and the brigade commander awaits further instructions or possible task organization changes.

One of the commander's greatest challenges is the control of the two task forces when one is in contact conducting a hasty attack and the other is continuing to move. The commander must stay abreast of the location and situation of the task force in the other zone. He must also guard against focusing too much attention on the action in his own zone. The maintenance of a consistent rate of march through the use of PLs, and the continual adjustment to the speed of each task force in its zone, are essential to a unified action across a broad front.

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## **SECTION IV. COMBINED ARMS BREACHING OPERATIONS**

### **BREACHING TENETS**

Commanders and staffs plan breaching operations as a part of all offensive missions. Successful combined arms breaching is a function of applying the four tenets of breaching. The tenets are:

- Intelligence.
- Breaching fundamentals and organization.
- Mass.
- Synchronization.

See FM 90-13-1 for additional information on breaching operations.

### **Intelligence**

In any operation where enemy obstacles can interfere with friendly maneuver, obstacle intelligence becomes a PIR. Finding enemy obstacles or seeing enemy obstacle activity validates and refines the S2s picture of the battlefield. Obstacle intelligence does several things:

- Supports the situation template.
- Helps determine enemy intentions as well as the strength of his defenses.
- Focuses intelligence-gathering assets.
- Drives breach/maneuver planning.

## **Breaching Fundamentals**

Suppress, obscure, secure, and reduce (SOSR) are breaching fundamentals. These fundamentals apply to all types of breaching operations (in-stride, deliberate, assault, and covert) with some variations based on the situation.

### ***Suppress***

Suppression is the mission-critical task for breaching operations. Direct and indirect fires serve to isolate the breach site/point of penetration and protect forces reducing and maneuvering through the obstacle.

### ***Obscure***

Effective emplacement of smoke degrades enemy observation and target acquisition and conceals friendly activities and movement.

### ***Secure***

The force secures the breaching operation site to prevent the enemy from interfering with obstacle reduction and passage of the assault forces. Security by fire or force depends on the enemy situation. The security force secures the breach site by suppressing outposts and fighting positions near the obstacle, and against overwatching and counterattacking forces.

### ***Reduce***

Reduction means creating lanes through the obstacle to allow the attacking force to pass. The actual breaching of obstacles is a major part of actions on the objective. The number and width of lanes varies with the situation and type of breaching operation. Reduction cannot be accomplished until the other SOSR fundamentals are applied.

## **Breaching Organization**

The commander organizes the forces to accomplish SOSR. This requires him to organize support, breach, and assault forces with the necessary assets to accomplish their roles.

### ***Support Force***

The support forces primary responsibility is to eliminate the enemys ability to interfere with the breaching operation. It must:

- Isolate the battlefield with fires and suppress enemy fires covering the obstacle.
- Mass direct and indirect fires to fix the enemy in position and to destroy any weapons that are able to bring fires on the breaching force.
- Control obscuring smoke to hinder enemy-observed direct and indirect fires.

Suppression is critical for a successful breach. The first priority of force allocation is the support force. The commander allocates direct and indirect-fire systems to achieve the support force ratio of 3 to 1 for a deliberate breach.

**Breach Force**

The breach force is a combined arms force. Its primary mission is to create the lanes that enable the attacking force to pass through the obstacle and continue the attack. It includes engineers, breaching assets, and a maneuver element capable of providing internal SOSR operations. The breach force commander can be the engineer commander or any subordinate commander working for the brigade commander in a command relationship.

The commander allocates engineer platoons and equipment based on the number of lanes required. The breach force must be capable of creating a minimum of one lane for each assaulting company or two lanes for an assaulting task force. The commander should expect a 50 percent loss of mobility assets in close combat. Therefore, breaching a lane in close combat requires at least an engineer platoon in the breach force.

**Assault Force**

The assault forces primary mission is to destroy or dislodge the enemy on the far side of the obstacle. It secures the far side by physical occupation in most deliberate or light-force breaching operations. The assault force may be tasked to assist the support force with suppression while the breach force reduces the obstacle.

If the obstacle is defended by a small force, the assault force mission may be combined with the breach force mission. This simplifies command and control and provides more immediate combat power for security and suppression. Combat power is allocated to the assault force to achieve a 3 to 1 ratio on the assault objective.

**Mass**

Combined arms breaching is conducted by rapidly applying combat power to reduce the obstacle and rupture the defense.

Table 4-1. Types of breaching operations versus enemy size.

Maneuver Unit	Instride	Deliberate	Assault	Covert	Enemy Size Overwatching Obstacles
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Brigade	X X	X *	X	X	Battalion Company Platoon
Task Force	X	X *	X	X X	Battalion Company Platoon
Company		X	X	X X	Battalion Company Platoon
X - Type of breach normally conducted * - Possible variation depending on scheme of maneuver					

Massed combat power is directed against an enemy weakness. The location selected for breaching depends largely on a weakness in the enemy defense where its covering fires are minimized. If the attacker cannot find a natural weakness, he creates one by fixing the majority of the defending force and isolating a small part of it for attack.

The need to generate enough mass strongly influences which echelon can conduct a breaching operation (see Table 4-1). A company team generally cannot simultaneously mass sufficient fires, breach the obstacle, and also assault the defending position unless it is a simple obstacle defended by no more than a squad. A task force has sufficient combat power to attack an obstacle defended by a company and is normally the echelon used to execute the breach.

The brigade has sufficient combat power to attack a complex and well-defended obstacle but has difficulty deploying all its combat power within range. Normally, the brigade breaches by isolating a small segment of the defense (platoon or company) that a task force can then attack as the breaching echelon. If the obstacle and defense are in-depth (large scale), brigades would normally receive additional support (such as artillery, engineer, aviation) from division for large-scale breaching operations. A large-scale breach is defined as a deliberate operation conducted by brigades and divisions to create a penetration through well-prepared defenses so that follow-on brigades and divisions can pass through them.

The commander also masses his engineers and breaching equipment to reduce the obstacle. The breach force is organized and equipped to use several different reduction techniques in case the primary technique fails (a key breaching asset is destroyed or casualties render dismounted engineers ineffective). Additional breaching assets are available to handle the unexpected. Normally, 50 percent more than required are positioned with the breach force.

## Synchronization

Breaching operations require precise synchronization of SOSR by support, breach, and assault forces (see Table 4-2). The commander ensures synchronization through proper planning and force preparation. Fundamentals to achieve synchronization are:

- Detailed reverse planning.
- Clear subunit instructions.
- Effective command and control.
- A well-rehearsed force.

Synchronizing the combined arms breach begins by using the reverse planning process to ensure actions at obstacles support actions on the objective. Planning a breach without regard to actions on the objective leads to disaster. The commander first decides how he must attack an objective to accomplish his mission. This decision drives where, how, and with what force he must support, breach, and assault through the enemys obstacles and take the objective.

Table 4-2. Breach complexity.

ACTION	ELEMENT	TIME (MINUTES)	CONTROLLED BY
Develop situation (verifying boundary of enemy obstacles system)	Force in contact	M to 2	S3
Maneuver support force into overwatch position	Support	M+2 to 15	Support Cdr
Maneuver assault force into covered assault position	Assault	M+2 to 15	Assault Cdr
Call for artillery	DS artillery	M+2 to 15	FSO
Build smoke	Mortars	M+5 to 10	FSO
Suppress enemy with direct fires	Support	M+15 to 29	Support Cdr
Suppress enemy with artillery fires	DS artillery	M+10 to 29	FSO
Maintain smoke	DS artillery/mortars	M+10 to 30	FSO
Maneuver breach force to breach location	Breach	M+20 to 23	Breach Cdr
Reduce obstacle Prepare two lanes	Breach	M+23 to 30	Engineer Leader
Place smoke pots	Breach	M+23 to EOM	Breach Cdr
Shift direct fires off of OBJ	Support	M+29 to 30	Assault Cdr
Shift indirect fires beyond OBJ	DS artillery	M+29 to 30	Assault Cdr
Assault to destroy enemy on far side of obstacle	Assault	M+30 to 45	Assault Cdr
Reorganize to continue mission	TF	M+45 to EOM	S3
M = contact with obstacle			

The most effective synchronization tool available to the commander is the rehearsal. The inherent complexity of a breaching operation makes rehearsals at every level essential to success. The commander must afford his subordinates the time to plan how they will execute their assigned missions and to rehearse that plan with their unit. Breaching operations are a part of every rehearsal.

## TYPES OF BREACHING OPERATIONS

### In-Stride

In-stride breaching is a very rapid technique using standard actions on contact and normal movement techniques. It consists of preplanned, well-trained, well-rehearsed breaching actions and reduction procedures by predesignated combined arms elements. The force uses the in-stride breach against either weak defenders or very simple obstacles and executes it from the march. Subordinate forces always move configured to execute an in-stride breach with organic and task organized engineer assets. A brigade in-stride breach is a deliberate breach for a task force.

### Deliberate Breach

The maneuver force attacks a stronger defense or more complex obstacle system with a deliberate breach. It is similar to a deliberate attack, requiring detailed knowledge of both the

defense and the obstacle system. Units conduct a deliberate breaching operation when:

- The unit fails an attempted in-stride breach of enemy tactical obstacles.
- Force ratios indicate that a confirmed enemy situation is beyond the capabilities of a subordinate unit.

A brigade conducts a deliberate breach using one or more task forces in support, breach, and assault roles. Breach task organization considerations and application of SOSR breaching fundamentals are the same as for the task force deliberate breach. The brigade scheme of maneuver must address how task forces maneuver to accomplish their support, breach, and assault missions. Since the brigade deliberate breach involves the maneuver of task forces, the brigade commander and staff are responsible for detailed planning, centralized rehearsals, and synchronization.

## **Assault**

The maneuver force uses an assault breach to break a dismounted force through enemy protective obstacles onto the enemy position. Depending on the size and difficulty of the defensive obstacle system, this breaching procedure can be a variation of either deliberate or in-stride breaching techniques.

## **Covert**

Light and dismounted forces use covert breaching operations to pass secretly through obstacles. The covert breach also uses elements of the deliberate or in-stride breach. Surprise is the primary consideration that drives the commander to a covert breach. Covert breaching centers around using stealth to reduce the obstacle with support and assault forces executing their mission only if reduction is detected.

A brigade with automated capabilities can conduct deliberate and in-stride breaching operations with greater speed and precision than a conventional unit. Rehearsals are still key, because breach operations are complex, yet the entire breaching operation can be conducted with greater confidence of success; this includes during periods of limited visibility. Units designated to conduct reconnaissance for the breach force unit can transmit accurate bypass information to the brigade with waypoints. This keeps units from blundering into the obstacle and allows for rapid passage through the obstacle system. Accurate and timely information on enemy and friendly forces allows the brigade to disperse, provide accurate direct and indirect fires on the enemy, and aggressively move to continue attacking the enemy. The brigade uses unmanned aerial vehicles (UAV), scouts, and other observation systems to accurately locate deep enemy targets (artillery, logistics) and attacks them prior to the assault forces arrival.

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## **SECTION V. NIGHT OFFENSIVE DOCTRINE**

Night offensive operations are conducted to exploit the possibilities for security and surprise or to continue combat operations. By conducting night operations the commander expects to conceal his action from the enemy, achieve surprise, exploit earlier success, or maintain the

momentum. In each case, the focus is gaining or retaining the initiative.

**Note.** All limited visibility operations require more detailed planning, rehearsals, and graphic control measures.

## ADVANTAGES AND DISADVANTAGES

### Advantages

Advantages of night offensive operations include:

- Defenses are more susceptible to infiltration.
- Despite increased efforts at protection, the defender is more susceptible to NBC attack because of reduced efficiency and sleep rotations.
- Movement of large forces is concealed by darkness.
- Physical and psychological factors favor the attacker. Shock, disorientation, and isolation are more easily achieved.
- Air assets can operate more safely due to difficult observation.
- Surprise is enhanced. Defenders are more susceptible to deception techniques (dummy lights, noise, smoke, and fires).
- The speed at which a defender can employ his reserves is reduced at night. DPs must be farther out in time and space.

### Disadvantages

Disadvantages of night offensive operations include:

- Command and control and coordination of units become more difficult, and it is easier for the defender to react to a changing situation and alter operations than it is for the attacker.
- It is difficult for the attacker to determine the limits of obstacles.
- Attackers can be deceived with light, smoke, noise, and fires.
- The attacker can lose momentum during the final assault because of the reduced speed of the attack.
- Navigation is difficult for night attacks. Units may be separated, command and control lost within units, and support elements moved out of position.
- The battlefield can be changed during darkness. Obstacles that escape reconnaissance can be emplaced under darkness.
- Adjustment of indirect fire is difficult, even with the use of night-vision devices (NVD) or illumination.
- Units require significantly larger quantities of signal ammunition (smoke, tracers, flares, and illumination rounds).
- Locating and evacuating casualties is very difficult.
- Use of FA illumination can render the artillery vulnerable to counterfire.

- Muzzle flash from the artillery guns can be detected easily.

## **TACTICAL PLANNING CONSIDERATIONS**

The following is a list of tactical planning considerations, by BOS, that are different for a night offensive operation when compared to a daylight offensive.

### **Intelligence**

Reconnaissance of the enemy should not be confused with reconnaissance of the routes to the objective. Units should reconnoiter their routes and rehearse if possible. Reconnaissance assets may be tasked to provide guides to a point on the battlefield, but are best used to pinpoint enemy fortifications. Reconnaissance of night objectives should include:

- Presence and number of searchlights and NVDs.
- Location of illumination points.
- "Duty" positions, that is, those that are continuously manned. These may also be false positions for daylight occupation only.
- Locations of AT weapons and FA guns.
- Forward locations of the reserve, command and OP positions, and counterattack routes.

### **Maneuver**

The forms of maneuver for the night offense are the same as for the daylight offense; however, conditions of METT-T may change the commander's perception of which form of maneuver best ensures mission accomplishment. Some additional planning considerations for night maneuver are:

- If attacking an enemy that has technological parity in night observation equipment and training or has the means to fully illuminate the battlefield, the envelopment or the turning movement can take advantage of darkness to flank or avoid enemy fields of fire, since not all areas of the defense will have equal coverage of night-vision equipment.
- Conversely, if the attacker has the advantage in night observation technology or is better trained than the defender, darkness may be used to conduct a penetration, infiltration, or frontal attack that may not have been feasible in daylight.

Unit reconnaissance of routes and axes is invaluable in conducting a night maneuver. Plans for night movement should include:

- Leader reconnaissance, in daylight, as far forward as possible.
- Measuring distances to check-points, PLs, and other control measures along the route of advance.
- Designation of guides for the combat formations.

### **Fire Support**

The adjustment of indirect fire by human observation becomes degraded at night. Darkness



and the use of NVDs both degrade depth perception. To counter these effects, plans should include the use of radar, illumination, and terminally guided munitions to ensure accuracy of adjustments. Each fire support team vehicle (FISTV) has a ground/vehicle laser locator/designator (G/VLLD) that can be dismounted to provide increased observation capability. The following considerations apply when conducting night attacks:

- Plan for illumination. A nonilluminated attack plan ceases to be one with the first enemy illumination round. Contingency plans should be made to illuminate at any point of the attack or to switch to continuous illumination.
- Plan counter observation to degrade night observation devices (NOD). Illumination rounds can white out enemy image intensification sights, and smoke can obscure the ambient light needed to use intensification devices.
- Initiate and cancel fires for prearranged handheld illumination.
- Place fire support coordination measures (FSCM) on identifiable terrain. Permissive measures should be as close as possible in front of friendly forces.
- Exercise caution when using FASCAM at night because it is difficult to see.
- Mark targets for ground burst illumination for ground forces as well as for CAS.

If possible, register as many targets as possible during daylight.

## **Mobility and Survivability**

The process of planning and preparing combined arms breaching during hours of darkness is the same as during daylight. The only difference is the inherent command and control difficulties experienced when conducting night operations. The tenets of combined arms breaching are planned and the operation wargamed and synchronized. Special considerations for breaching at night include:

- Covert breaching. Consideration must be given to decreasing the signature of firing demolitions.
- Additional time required to position forces and conduct the breaching operations.
- Control measures for moving and positioning forces.
- Night marking devices (far recognition, final approach, and lanes).
- Fire control measures.
- Rehearsals (night).

## **Air Defense**

At night, identification, friend, or foe (IFF) relies mostly on electronic interrogation. Visual detection capability depends on the ambient light available.

Forward area air defense (FAAD) has immense signatures; it should not be positioned where it brings return fire onto adjacent units.

Combined arms for air defense should not normally be employed at night, except for immediate self-defense.

## **Combat Service Support**

Units in a night offensive must be resupplied, rearmed, and refueled before execution. Logistics activity is much tougher at night.

Casualty location, identification, and evacuation require additional control measures and ground resources. The battalion aid station should be farther forward, and plans for aeromedical evacuation must include marking signals for the pickup zones.

Pre-positioning supplies and services forward helps support night attacks. OPSEC must be maintained so that an imminent offense is not detected.

CSS should be brought forward rapidly at first light to allow the momentum of the offense to continue.

## **Command and Control**

This is the area of tactical planning that changes most during night offensive operations. That is because centralized control can simplify synchronization of the plan in this instance.

Graphic control measures are usually more restrictive for a night attack. There are graphic control measures that apply specifically to limited visibility, point of departure, and probable line of deployment (see FM 101-5-1). All leaders must be familiar with these terms and symbols. All control measures should translate into easily identifiable locations on the ground, under all levels of visibility.

Navigation at night must be planned in greater detail and take advantage of visual and nonvisual technological capabilities. It may also include the use of guides and traffic control points.

Communications must also be planned in greater detail. Plan redundant means of communication. Place particular emphasis on COLT, scout, and FS links. Specify communications events in the synchronization matrix and plan event triggers. Pre-position single vehicles forward to act as manual radio relays to back up retransmission failure. Link vulnerable communication teams with scouts and MPs for force protection.

Scout and other reconnaissance elements such as COLTs, ADA scouts, MPs, or engineer scouts require highly detailed signal support and extensive back-up. Reconnaissance elements operating well forward at night should not plan operations beyond their communications ranges. This is even more true during air insertions and dismounted/light scout operations.

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# FM 71-3

## The Armored and Mechanized Infantry Brigade

### CHAPTER 5 DEFENSIVE OPERATIONS

As in offensive operations, the brigade commander sets the conditions for success in defensive operations. He uses all organic and supporting systems with precision and at their maximum capability. Ground combat power is then applied to defeat the enemy.

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Section I.	<a href="#">Fundamentals of Defensive Operations</a>
Section II.	<a href="#">Conducting Defensive Operations</a>
Section III.	<a href="#">Combined Arms Obstacle Integration</a>
Section IV.	<a href="#">Brigade Covering Force Operations</a>
Section V.	<a href="#">US Night Defensive Doctrine</a>

## SECTION I. FUNDAMENTALS OF DEFENSIVE OPERATIONS

### THE PURPOSE OF THE DEFENSE

The main purpose of a defensive operation is to cause an enemy attack to fail. Brigades normally conduct defensive operations as part of a division- and corps-level defense. They may attack, defend, or delay as part of the security area, MBA, or reserve force. Brigades may also conduct offensive operations across the FLOT while the majority of the division or corps defends, or they may serve as a ground tactical combat force in support of rear operations. Armored brigades possess the type of combat power and mobility ideally suited for mobile defenses. While normally conducting the mobile defense as a part of division or corps operation, in a force projection Army, the brigade commander may find situations where a mobile defense is the best option available at his level.

At times, the brigade may be required to retain key terrain or facilities, or conduct an attack as the striking force of a division or as a reserve force for the corps. The brigade's mission to retain key terrain may be ordered if it assists or creates an opportunity for the higher headquarters to shift to the offensive. Inevitably, the brigade defense focuses on regaining the tactical initiative or creating the opportunity for its higher headquarters to shift to the offensive.

### OPERATIONS IN DEPTH

The commander conducts simultaneous operations in depth and organizes the battlefield into three complementary elements of deep, close, and rear operations.

## Deep

Deep operations are directed against enemy forces and functions beyond the close battle. Generally, the brigade needs additional assets from division to conduct deep operations. These assets may include electronic jamming equipment and attack helicopters. The brigade commander must synchronize these additional assets to simultaneously attack the enemy throughout the depth of the battlefield. Brigades may also maneuver as part of the divisions deep attack.

## Close

The MBA comprises the area we typically designate as close operations. Brigades generally array the bulk of their combat power within the MBA. Normally brigades defend within the MBA, act as the higher commander's reserve, or act as part of the division or corps striking force.

The brigade could act as the security force for the higher commander or it could provide its own security force, although this is not desirable. In either case, the brigade conducts passive and active reconnaissance and security measures throughout the depth of AOs.

The brigade commander retains a reserve force based on the threat force assessment. The task and purpose for the brigade reserve unit are identified during the wargaming process. The reserve is committed at the decisive point to ensure the defeat of the enemy force.

## Rear

The brigade's rear operations include self-protection of its units and protection and maintenance of its LOCs. The brigade normally designates a tactical force to react to rear threats. Rapid response ability to a rear area threat, particularly Levels II and III threats, is integral to the commander's ability to sustain a viable defense. The brigade may also be tasked to provide tactical forces to support the higher commander's AO.

## DEFENSIVE PATTERNS

### Mobile

A brigade generally does not conduct a mobile defense, but conducts area defensive or offensive operations as part of the divisions defense (see Table 5-1). A mobile defense orients on the destruction of the attacking force by permitting the enemy to maneuver to a position of disadvantage that exposes him to the striking force. A brigade may conduct a movement to contact or deliberate attack as part of a division or corps striking force.

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Table 5-1. Characteristics of forms of defense.

**MOBILE DEFENSE****AREA DEFENSE**

Orients on the enemy (destruction or defeat)

Deny enemy access to designated terrain for a specific time

Mobility greater than or equal to the enemy

Mutual supporting positions and in depth

Defend with minimum force

Defend with maximum force

Fire and maneuver

Interlocking fires

Striking force

Smaller mobile reserve for local counterattacks

Striking force used at the decisive point

**Area**

A brigade conducts an area defense as part a division or corps defense. Area defense orients on retention of terrain or facilities for a specified time. When planning the area defense, the brigade commander decides the decisive point, when to concentrate his main effort, and where to economize forces based on his own estimate of the situation and the higher commander's concept. He then assigns missions; allocates forces, fires, and other support; and sets priorities for resources to fight a combined arms battle.

The brigade commander elects to defend forward or in depth based on METT-T and higher commanders intent. A defense in the forward part of the sector requires early commitment of the main defensive effort. This may be achieved either by an initial forward deployment of forces or by planning counterattacks well forward in the MBA or even forward of the MBA. A defense in depth may be selected when missions are less restrictive, defensive sectors are deep, and key terrain lies deep in the sector. A defense in depth relies on elements in the security force area and forward elements in the MBA to identify, define, and control the depth of the enemy attack. The flanks of the enemy main effort are counterattacked to isolate and destroy enemy forces in the MBA.

**SYNCHRONIZATION OF DEFENSIVE OPERATIONS**

The brigade commander integrates and synchronizes all assets to maximize combat power. To effectively focus combat power, the brigade commander designates the brigade main effort; this links each subordinate commander's actions to those around him, providing cohesion and synchronization. As the brigade commander develops his battle plan for the employment of maneuver forces, he must visualize how he will synchronize his FA, air defense, EW, NBC, engineer, CAS and any joint or multinational supporting assets at the decisive time and place on the battlefield.

**Intelligence**

The brigade S2 focuses on IPB in planning for the defense and analyzing the close operation to predict and confirm enemy intentions. Before the battle, the brigade commander requires



specific information about:

- The composition, equipment, strengths, and weaknesses of the advancing enemy force.
- The location, direction, and speed of enemy reconnaissance elements.
- The location and activities of enemy follow-on forces.
- Enemy initial and follow-on regimental or brigade command, control, and communication facilities.

The brigade staff prepares a detailed R&S plan to focus reconnaissance assets at enemy decision points, thus confirming the enemys adopted course of action.

## **Maneuver (Aviation)**

The inherent speed, agility, flexibility, and lethality of aviation elements make them an offensive asset that the brigade can employ to assist in seizing and retaining the initiative. Army aviation can also be used to attack and destroy the enemy when and where he is most vulnerable. Aviation units OPCON to the brigade can conduct attack operations, air assaults, reconnaissance, and security missions with ground operations. Attack helicopter battalions/aviation task forces should be augmented with ground forces when assigned guard and/or covering force missions.

Logistics support of aviation units remains the responsibility of the aviation brigade; however, forward support aviation logisticians are coordinated with the FSB operations section in the BSA.

For a detailed discussion on ground maneuver, see [Section II](#) of this chapter.

## **Fire Support**

The brigade commander weights the main effort by establishing FS priorities. FS is synchronized with maneuver forces to disrupt and weaken the enemy's attack to provide opportunities for friendly counterattack. The FSCOORD uses the IPB process, intelligence gathering resources, and the TVA process to focus all supporting fires.

Control of FS assets is centralized for defensive operations. Ammunition is pre-positioned and firing positions are surveyed in advance. The FSCOORD focuses his planning effort on the following tasks:

- Engaging the enemy early to disrupt the cohesion of its attack and reduce its intelligence gathering capability. As the enemy enters the security area and MBA, FS will continue to reduce enemy intelligence gathering ability to mass combat power.
- Supporting rear operations.
- Providing deep fires to delay and disrupt reinforcing units.
- Screening friendly movements.
- Providing counterfire to limit the enemy's ability to shift combat power rapidly.
- Integrating fires with the brigade obstacle plan.

The brigade synchronizes the MBA to mass the effects of all FS assets.

## **Air Defense**

The brigade uses a combination of passive and active air defense measures. Priorities shift toward protection of the covering force, FS elements, BSA, and command and control facilities. Maneuver units are integrated into the counterair plan by engaging appropriate targets within the capabilities of the weapon systems. Collection and early dissemination of air threat information are required to make this system work. ADA units require engineer support to dig firing positions for Bradley Stinger fighting vehicle (BSFV) systems.

In defensive operations, air defense assets are positioned to achieve mass. Normally, the priority of protection will begin with the command and control facilities. That is because these are generally fixed sites with high electronic signatures, which makes them susceptible to identification and targeting by threat aircraft. Therefore, the brigade air defense representative will examine the air avenues of approach toward the command and control facilities and position both guns and missiles in a manner that disallows the threat aircraft to reach the target.

## **Mobility and Survivability**

The priority of engineer effort in the security area is normally given to mobility of the passing units of the covering force, then to countermobility to delay the advance of threat units. Priority for engineer support in the MBA is determined by the brigade commander based on METT-T. A trade-off between countermobility and survivability exists because of limited resources. Obstacles are emplaced in depth to support the maneuver commander's scheme and are integrated into the FS plan to maximize the effect of friendly fires. Counterattacks may require improvement of mobility corridors to ensure success. Priority of engineer effort in the rear is given to mobility, then to survivability for command, control, and communications, reserve, and CSS assets.

Defensive operations require intensive management of engineer resources allocated to support the brigade plan. The resources usually consist of a combination of divisional and corps engineer units. The assistant brigade engineer and the brigade S4 coordinate early to forecast and request the large quantities of required Classes IV and V materials and munitions.

## ***Nuclear, Biological, and Chemical Defense***

Throughout the planning process, the brigade commander plans for possible enemy use of NBC weapons and for employment of NBC defense units.

The commander also determines decontamination priorities. All plans and operations of forces and installations are analyzed by the S3 and chemical section to determine their vulnerability to these weapons. The commander specifies the degree of risk he is willing to accept. The brigade chemical section can suggest changes to the concept of the operation if the concept involves unacceptable risks from enemy weapons.

## ***Chemical Reconnaissance***

Brigade NBC reconnaissance operations in the defense normally focus on identifying clean areas, BPs, movement routes, decontamination sites, and contaminated areas that directly affect operations. The information gathered from the reconnaissance effort is immediately passed to higher, lower, and adjacent units and periodically updated.

## **Combat Service Support**

The S4 and the FSB commander must understand the brigade commander's intent so that service support priorities can be established and logistical operations planned to ensure the supportability of the operation. Real estate management of the BSA and plans to conduct operations against Levels I and II rear area threat must be incorporated into the plan. The following considerations and operational techniques improve the CSS provided to a defending unit:

- Limited amounts of ATP-stocked ammunition (25 percent of basic load) are pre-positioned in the MBA on centrally located positions.
- Push-packages of certain critical items (ammunition, POL, selected repair parts, barrier materials, medical supplies, and NBC supplies) are dispatched from rear areas (division support areas to brigade support areas to unit trains) on a scheduled basis so that interruptions in communications do not disrupt the flow of supplies.
- Class IV and Class V point for countermobility push-packages are established.
- Resupply during periods of limited visibility reduces chances of threat interference. Resupply vehicles infiltrate forward to reduce chances of detection.
- CSS units are echeloned in depth throughout the defensive area. When a forward CSS unit is required to displace to the rear, another unit picks up the workload until the displacing unit is again operational.
- Maintenance contact teams are employed and dispatched as far forward as possible to cut down on the requirement to evacuate equipment. The thrust of the maintenance effort is to fix as far forward as possible.
- Different types of maintenance contact teams (vehicle, armament, missile) are consolidated to use the available vehicles.

## **Command and Control**

After completing the estimate of the situation, the brigade commander announces his decision and concept of the operation to key members of the staff. The concept is in enough detail for his staff to understand how he intends to conduct the battle. Staff preparation of plans and orders is based on the commander's concept. Subordinates are given maximum possible time to prepare since the effectiveness of the defense depends on time-consuming tasks, such as reconnaissance, fire planning, preparation of positions, installation of obstacles, positioning of supplies, and improvement of routes. WOs and subsequent oral instructions are used to get the word out. Commanders do not wait for the complete plan to begin preparations.

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## SECTION II. CONDUCTING DEFENSIVE OPERATIONS

### AREA DEFENSE

#### Planning

Brigade commanders need information to fight the close-in battle of the brigade against the OPFOR. They also need accurate intelligence about OPFOR elements that can close on their area of operation before the current engagement can be decisively concluded.

The brigade commander needs specific information about the:

- Composition, equipment, strengths, and weaknesses of advancing forces.
- Location, direction, and speed of OPFOR battalions and their subordinate companies.
- Location and activities of OPFOR follow-on echelons capable of reinforcing the first echelon.
- Location of OPFOR indirect-fire weapon systems and units.
- Location of gaps, assailable flanks, and other tactical weaknesses in the threat's order of battle and OPSEC posture.
- Locations of anti-aircraft and missile artillery units.
- Location of surface-to-air missile units.
- Location of radioelectronic combat units.
- Effects of weather and terrain on current and projected operations.
- Most likely withdrawal routes for threat forces.
- Anticipated timetable or event schedule associated with the threat's most likely COA.

Specific information about OPFOR command, control, and communications facilities is of paramount concern to the brigade commander. He seeks to know the specific locations of threat

- Division forward and main CPs.
- Regimental and battalion CPs.
- Fire direction control (FDC) centers.
- CPs and OPs.
- Radio and radar reconnaissance sites.
- Radioelectronic combat sites.
- Target acquisition sites.

The suppression, neutralization, and/or destruction of threat command, control, and communication systems and facilities are critical to the success of the close-in battle. Brigade S2s, in concert with supporting division and corps IEW, maneuver, and FS units, use all available means to identify, locate, disrupt, and destroy these targets. Their objective is to neutralize the threat commander's capability to command and control troops. Normally, the brigade S2 receives his information from the following sources:

- Maneuver unit observation spot reports (SPOTREP)/patrols.
- FA units. Weapons locating radar, cannon, rocket, mortar.
- Air defense units. Forward area air defense command and control communications and intelligence (FAADC3I).
- MI assets.
  - GSRs
  - Remote sensors.
  - Counterintelligence support.
  - Prisoner of war interrogation (IPW) teams.
  - Aerial surveillance side looking airborne radar (SLAR).
  - Ground EW assets collection and jamming.
  - UAVs.
- Aviation.
  - Reconnaissance flights.
  - In-flight reports.
  - Divisional special purpose countermeasure system
  - Quick fix 11B.
- All source analysis system (ASAS).

The brigade commander determines where to position his forces based on the enemys maneuver options. He desires to build depth based on terrain and how it affects the enemys maneuver options. If the terrain is restrictive and does not allow depth behind him, he compensates by early commitment of main defensive forces. If necessary, counterattacks may expand the forward area if the opportunity exists. Further depth is created by security forces and deception operations that lead the enemy to believe that the main defensive battle area is further back. When the terrain or mission is less restrictive, the brigade commander builds depth with security and covering forces by selecting key terrain deeper in the area of operations and conducting deception operations that lead the enemy to believe that the defense is forward.

Brigade commanders organize the battlefield for defense by assigning either sectors or BPs to subordinate battalions or task forces.

Sectors give the battalion task forces freedom to maneuver and decentralize fire planning. They allow the task force commander to distribute his teams to suit the terrain and plan a battle that integrates direct and indirect fires. The brigade commander conducts a backbrief with the battalion commanders to approve and deconflict their plans. A defense in sector requires continuous contact with flank units for security.

BPs are used when the brigade commander wishes to control maneuvering and positioning of his task forces. They are also used when it is necessary to concentrate task forces rapidly. When the brigade commander establishes BPs, he controls maneuver outside those BPs. He prescribes primary directions of fire by the orientation of the position, and is responsible for fire



and maneuver planning between positions of different battalions. If he assigns a BP and a sector, he is giving the task force commander specific guidance on initial positioning of forces.

A strongpoint is a heavily fortified BP tied to the natural and reinforcing obstacle to create an anchor for the defense. A strongpoint is located on a terrain feature critical to the defense or used to block a bottleneck formed by terrain obstacles. Strongpoints in small urban areas, astride routes, or along assembly areas may halt a superior threat force for a considerable time. To be most effective, the strongpoint should be a surprise to the threat. It causes congestion and limits the threat force's maneuver. It is best used to set up a counterattack. Strongpoints must be well camouflaged and protected.

Control measures, such as PLs, boundaries, contact points and passage points (PP), checkpoints, direction of attack arrows, and objectives combined with fire control measures to provide a means of controlling the battle.

The commander's tactical scheme must include plans for deep, close, and rear operations. The objective of the defense is to halt the enemy, seize the initiative, and go to the offensive. The commander's tactical scheme must include plans to counterattack against the threat rear or flank whenever possible. The brigade reserve is the key to the execution of offensive operations.

### ***The Reserve***

The brigade commanders most critical decision during the defense is the commitment of the reserve. Commitment of the reserve is the most effective way the brigade commander can influence the battle. Once committed, the reserve becomes the brigade main effort. Early in his planning, the brigade commander makes fundamental decisions concerning the size, composition, and mission of the reserve. A major purpose of the reserve is to regain initiative through offensive action. The reserve does this by conducting counterattacks, spoiling attacks, and raids against the enemy, preferably to its flanks and rear. Other purposes of the reserve are to:

- Block penetrations.
- Contain enemy forces that have penetrated.
- React to rear area and flank threats.
- Relieve depleted units and provide for continuous operations.

If the brigade commander does not have sufficient reserves of his own, he may require his subordinate task force commanders to obtain his permission before the employment of their reserves. He may also specify the location of their reserves. METT-T will dictate the size and composition of the reserve. The reserve must remain concealed until committed. This protects it from enemy attack and enhances the shock effect when it is committed.

The brigade commander immediately reconstitutes a new reserve as soon as the original reserve is committed. This restores his ability to influence the battle with maneuver forces. Even a small reserve can be decisive in tipping the balance of victory.

The brigade commander uses DPs developed during the construction of the DST to trigger

execution of contingency plans for his reserve (see [Figure 5-1](#)). The reserve makes maximum use of the defensive preparation time to rehearse each contingency plan, in priority.

Rehearsals are conducted, both day and night, to the lowest level possible. Target areas of interest (TAI) are developed to support the reserve when it is committed.

In planning contingencies for offensive actions of the reserve, the brigade commander considers the enemy situation and estimates the TDIS factors related to follow-on enemy echelons based on the IPB process. Then he determines which of his units will attack, where they will attack and be positioned after the attack, and what interdiction or deep attack is necessary to isolate the enemy. The commander must also consider the TDIS factors required to focus his combat power at the decisive point to defeat the desired enemy force.

Although he plans for the counterattack, the brigade commander must realize that it is unlikely the action will correspond exactly to expectations. As the situation develops, the commander answers these basic questions:

- Will an attack facilitate the higher commanders intent?
- Is an attack feasible or should the reserve be employed to contain enemy success?
- When and where should the attack be executed?
- In the event of multiple penetrations, which should be attacked and which should be blocked or contained?
- Is the window of opportunity large enough to complete the counter-attack before the closure of the next enemy echelon?

### ***The Reserve and the Spoiling Attack***

At times, reserves are used in a spoiling attack role to throw the enemy preparations for the attack off stride. Basic considerations for the spoiling attack follow:

- The spoiling attack delays, disrupts, and destroys the enemys capability to launch its attack or commit a following echelon.
- The objective of the attack is to destroy enemy personnel and equipment, not to secure terrain and other physical objectives.
- Spoiling attacks are not conducted if the loss or destruction of the force jeopardizes the ability of the command to accomplish its defensive mission.
- Mobility of the force available for the spoiling attack should be equal to or exceed that of the enemy force.
- FS assets attack available enemy reinforcements to ensure the success of the spoiling attack.

Commanders coordinate plans for counterattacks and spoiling attacks using the attack techniques discussed in [Chapter 4, Offensive Operations](#). The spoiling attack has many of the characteristics of hasty attack and raid operations.

### ***Reinforcing with the Reserve***

In some situations, the brigade commander determines that he cannot counterattack with a reasonable chance of success. He positions the reserve to contain or delay the enemy to gain time for the employment of the reserve of the higher echelon.

The transition from a defensive posture to the offensive is not exclusively the responsibility of the reserve. A variety of tactical situations may offer the opportunity for, or even require, defending units to launch hasty or immediate attacks. Such situations include:

- Breakout from encirclement.
- Relief of encircled forces.
- Raids and spoiling attacks.
- Collapse of enemy resistance or unanticipated enemy withdrawal.

As they plan their battle, the brigade commander and staff consider how reinforcing battalions and companies will be integrated into the defensive scheme. This planning includes placement of BPs, the routes, and the command and control arrangements. Supporting engineer and MP assets must maintain route trafficability to enable timely movement of the reserve throughout the brigade sector. For the MP, this includes ensuring designated routes remain clear of dislocated civilians. Positioning and movement of reinforcements are enhanced by designating the routes and providing traffic control personnel and guides at contact points to lead reinforcements and brief them on the situation.

One way the brigade commander weights the main effort is by establishing FS priorities. Close and deep fires are synchronized with maneuver forces to disrupt and weaken the enemys offensive action and to provide windows of opportunity for friendly offensive action. The FSCOORD uses the IPB process, full integration of intelligence gathering resources, and the TVA process to focus FS on the systems vital to the enemys success.

Synchronization of direct and indirect fires with obstacles multiplies effects on the enemy. An obstacle is an excellent location for preplanned artillery/mortar fires and for eliminating small breaching teams. The indirect fire effects will contribute to the enemys difficulties in attacking through the obstacle, making it more effective and providing direct-fire systems a higher probability of kill. Only critical obstacles should be targeted. The FA battalion cannot cover all obstacles. To be effective, the FA should be massed only on those obstacles that are key to the success of the battle, and can best maximize all brigade weapon systems.

## **Preparation**

The object of a successful defense is to know what the enemy will do before he does it. During the rehearsal, subordinate commanders explain their R&S plan; who they call upon sighting the enemy; and the specific PIR for which they should be looking. The commander decides the COA appropriate for the situation. The maneuver commanders must demonstrate their flexibility in adapting to a rapidly changing situation.

The commander rehearses the synchronization of his combat multipliers with the maneuver. The intent of the brigade commander is to practice the controlling of these assets as a single activity.

The brigade engineer and staff monitor the preparation, revise the timeline, and keep the brigade commander informed. Task force plans and overlays are checked to ensure EAs are properly developed and the commander's intent achieved. Execution matrices should reflect a clear synchronization between the obstacle intent and fires.

There is no substitute for a thorough ground reconnaissance to confirm the plan. Obstacle siting procedures confirm the linkage between fire control and obstacle intent.

## **Execution**

The brigade commander, with key staff, normally fights the battle from the TAC CP; however, his personal presence may be required at critical points, such as battle handover from security forces or commitment of the reserve.

Because command and control facilities are more static than in the offense, emphasis must be placed on locating them in hardened areas or protective terrain and reducing electronic signature. The main CP should be located as far to the rear as possible while maintaining reliable communications with the TAC CP, deep assets, and subordinate battalions. The main CP focuses on monitoring the progress of the battle, forwarding information (higher and lower) and support requests (higher), and coordinating supporting units.

The rear CP anticipates future support requirements; it coordinates with the FSB commander to ensure continuous logistics support to enable friendly units to regain the offensive. It also focuses on continuity of support for current operations and control of brigade CSS units moving forward from the BSA. The rear CP must continuously monitor the battle and be prepared to immediately assume the role of the main CP, if necessary.

## **MOBILE DEFENSE**

A brigade commander conducts a mobile defense if directed by his higher headquarters or it is determined as a result of his estimate of the situation and approved by his higher commander. A mobile defense is generally conducted when the enemy possesses inferior mobility, or when defending vast featureless terrain against a sizable enemy force. Likely situations when a brigade would conduct a mobile defense are when it is the assault echelon for a division or when conducting an economy-of-force role on a flank of a division or corps defense. In both situations the enemy force will most likely outnumber the friendly force as assessed over a given time period.

The brigade commander normally employs a covering force, fixing force or forward defensive force, striking force, and reserve force (if forces are available).

The covering force has the task of covering for the main body, identifying the enemy main effort, and assisting in shaping the battlefield for commitment of the striking forces. The covering force should be a self-contained force. The commander for the covering force is augmented with available FS assets as needed to assist the brigade commander in shaping the battlefield and destroying selected deep targets. Units in the covering force must clearly understand the brigade commander's intent and what actions or events that appear to the enemy as successful. It is important for all units in the covering force to allow the enemy to

move in a specific direction without a great deal of influence if the enemy is moving towards the striking forces' EAs.

The forward defense force has the task to delay and fix the enemy force for a specific time to allow the striking force time and space to maneuver. The forward defense force may consist of any appropriate force necessary to conduct delaying and fixing tasks as determined from the commander's estimate of the situation. Continuous coordination with the covering force must be maintained to ensure no enemy reconnaissance or maneuver forces bypass them and interrupt the maneuver of the striking force.

The striking force is comprised of the maximum combat power available to the commander at the time of attack. The striking force must have equal or greater combat power and mobility than the enemy. Combat power should factor in such things as surprise and include all available forces, ground and air maneuver, and FS assets (joint and combined). The striking force is a committed force and is the main effort of the brigade upon its commitment. While destruction of the enemy is normally the primary objective, other objectives may include breaking up the enemy's momentum, disrupting his timetable, or causing him to shift his forces, all of which buy time for friendly forces.

A reserve force, if available, may be employed to assist in shaping the battlefield or to destroy enemy forces that bypass the forward defense force. Attack helicopters are ideally suited to conduct a counterattack to stop an enemy penetration.

The brigade commander specifies the defensive pattern in his mission statement and ensures all tasks assigned to subordinate units support his scheme of maneuver.

Engineer assets must resource the forward defense force and the striking force. Priority of effort to the forward defense force is survivability and countermobility. Priority of effort to the striking force is mobility and then countermobility. The brigade commander designs a plan that uses obstacles to turn and fix the enemy but ensures attack routes for the strike force are clear. Aerial delivered mines should be planned to help shape the battlefield. A maneuver force element within a striking force organization may have to conduct a hasty breach and attack through a short duration minefield after the minefield has been disarmed. The brigade plans and rehearses all breaching operations to ensure no time is wasted, which may impact on commitment of the striking force.

The brigade commander retains control of the striking force and the reserve force, if designated. The brigade is the echelon conducting a mobile defense, and all other subordinate units not in the striking force conduct an area defense, strongpoint, or delay in sector for a specific time. The brigade commander provides the striking force commander with the decisive point, objective, and EAs where the enemy force is to be destroyed. The brigade commander clearly understands and articulates to the striking force maneuver commander the size and composition of penetrating enemy forces to be destroyed within the EAs. The striking force commander is provided updated information on the enemy as it moves toward designated EAs.

A mobile defense assumes risk because the defending brigade retains the majority of its combat power in the striking force or is positioned to support the striking force. The risks are twofold. First, the forward defense force is not adequate in strength to accomplish the mission



alone. The success of the mobile defense depends on successful commitment and accomplishment of the assigned purpose of the striking force. Second, the enemy may not maneuver or be forced into an area where the brigade commander intended and commitment of the striking force is not accomplished.

Detailed rehearsals at brigade and battalion levels are essential to ensure all forces understand their assigned tasks and purposes, and they can execute them without detailed guidance from the commander. Communications is key to success and assets must be planned and positioned to support each transition phase without disruption.

The supplies required when conducting a mobile defense vary based on the task assigned to units within the overall scheme of maneuver. The covering force requires Class III and V (maneuver and engineer) increases to support its operations. Medical evacuation (MEDEVAC) and recovery evacuation assets may need augmentation and must be carefully planned and rehearsed to support the covering force. The defending force requires significant quantities of Class V and Class IV. The striking force requires greater amounts of Class III during the attack and Class V, maintenance, and medical support after the attack. The commander designates his priority of CSS by phase and develops a flexible plan to shift priority as the situation changes.

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## **SECTION III. COMBINED ARMS OBSTACLE INTEGRATION**

Obstacle control is a tool that commanders use to assign responsibility and to provide control for obstacle emplacement (see FM 90-7 for more information). To achieve obstacle control, commanders use obstacle control measures and obstacle effects graphics that allow a commander to graphically define the area in which subordinates can plan tactical obstacles.

### **OBSTACLE CONTROL MEASURES**

#### **Obstacle Zones (Division) and Belts (Brigade)**

The division commander uses obstacle zones and the brigade commander uses obstacle belts to limit the area where subordinates are authorized to employ tactical obstacles so that there will be no conflict with the higher commander's plans for maneuver. Commanders draw obstacle zones and belts to give subordinate commanders maximum flexibility to use obstacles but still ensure that effect of the obstacle supports the overall plan. Obstacle control measures imply authorization to employ all types of obstacles not listed as restricted within the confines of the obstacle control measure.

#### **Obstacle Belts**

Brigade obstacle planning concentrates on the development of obstacle belts to further focus the location and effect of tactical obstacles within the brigade sector. Obstacle belts are the primary means the brigade commander uses to further control brigade tactical obstacle employment within his AO. The brigade commander designates obstacle belts within his assigned obstacle zone(s) that further define areas where battalions are authorized to employ

tactical obstacles. Belts enable the brigade commander to directly link tactical obstacle effects to the brigade FS plan and the direct fire responsibilities for assigned task forces.

Obstacle belts are simply a refinement or subset of the obstacle zone in which they are planned. The area defined by the belt must not violate the boundaries of the parent zone. Obstacle restrictions imposed by the parent zone apply to all belts within the zone. The brigade commander may add restrictions to a particular belt, but they are in addition to any imposed by the division obstacle zone.

The brigade commander assigns each obstacle belt a specific obstacle effect. This gives purpose and direction to task force obstacle planning. Both the FS plan and direct fire responsibilities are brigade driven. The brigade commander must also assign specific obstacle effects to each belt to ensure obstacles within the belt complement the brigade fire plan. The commanders intent conveys the overall effect that must be achieved by fire and obstacles against a specific target within the defined belt of his task force commanders.

The brigade commander uses obstacle belts to attack the maneuver of enemy brigades/regiments. Belts are planned and allocated against brigade avenues of approach based on battalion mobility corridors. This is consistent with the brigade planning, which allocates companies against battalion mobility corridors and task organizes battalions to defeat enemy brigades.

## **Obstacle Groups**

Task force obstacle planning focuses exclusively on establishing an inseparable union between obstacle effects and the fire plan by planning obstacle groups. An obstacle group is a collection of individual obstacles designed and arrayed to produce a singular, specific effect on an enemy battalion-size formation. Detailed task measures and fixed company responsibilities allow the task force commander to fix both group effect and location to support his fire plan.

## **Obstacle Restrictions**

Commanders use obstacle restrictions to limit certain types of obstacles inside an obstacle control measure. These restrictions ensure that subordinate commanders do not employ obstacles with characteristics that impair future operations. It also allows the commander to focus the use of limited assets and resources for the main effort by restricting their use elsewhere. Obstacle restrictions preclude employment of the designated type of obstacle within the obstacle control measure. Battalion commanders have the right to be more restrictive than the brigade commander; however, the battalion commander cannot lower the brigade commander's restrictions.

## **TYPES OF TACTICAL OBSTACLES**

Tactical obstacles are used to directly attack the enemy's ability to maneuver, mass, and reinforce. All tactical obstacles produce a specific obstacle effect. They are integrated into the force's scheme of maneuver, and direct and indirect fire plans. Types of tactical obstacles are directed, reserve, and situational obstacles.

## **Directed**

All tactical obstacles produce one of four primary obstacle effects: to block, to turn, to fix, or to disrupt (see [Figure 5-2](#)). Obstacle effects manipulate the enemy in a way that supports the commander's intent and scheme of maneuver. Obstacle effect drives integration, focuses subordinates' fires, focuses obstacle effort, and multiplies the effects of firepower. Remember that obstacle effects occur because of fires and obstacles, not just obstacles alone. The brigade commander and staff must understand the exact effects that tactical obstacles produce. Precise use of the obstacle effects are necessary to translate concepts to fire and obstacle planning.

Obstacle effect is always expressed using the standard tactical obstacle effects. The desired obstacle effect must be clear to subordinates since it provides a common expectation of the effect fires and obstacles have on enemy maneuver. The brigade commander uses standard obstacle effects graphics to convey obstacle intent to his staff and subordinates. Tactical obstacle effects are unique for each type.

## ***Blocking***

Blocking obstacles are used to integrate fire planning and obstacles to stop an attacker along a specific avenue of approach. Fire plans covering blocking obstacles are primarily oriented on stopping enemy maneuver. This effect focuses on retaining terrain and protecting the integrity of the obstacle rather than completely destroying the attacking force. The success of the blocking obstacle is measured by the impact on the enemy advance rather than enemy losses. The blocking obstacle is the most resource intensive type of tactical obstacle; commanders should use it only at critical points in the battle.

## ***Turning***

Turning obstacles are used to divert an enemy into an EA and expose his flanks. Commanders use turning obstacles within EAs to divert an enemy formation off one avenue of approach to another avenue in support of the scheme of fire. Fire control must be planned to maintain pressure on the enemy throughout the turn and exploit his exposed flank. Fire control to complement the turning obstacle must initially promote overwhelming volumes of lethal fires at the start of the turn and then maintain fires on the enemy.

## ***Fixing***

Fixing obstacles are used to focus fire planning and obstacle effort to slow an attacker within a specified area, normally an EA. Obstacles and fires are planned in depth and build with intensity to complete the enemy's destruction within the specified area. The fixing obstacle allows fires to defeat the enemy in detail or gain the necessary time for forces to reposition while inflicting maximum casualties. To complement the obstacle, the direct and indirect fire plan must:

- Cause the enemy to deploy into attack formation.
- Allow the enemy to advance within the EA.

- Make the enemy fight in multiple directions once in the EA.
- Depth, increasing intensity, and interlocking fires are all vital characteristics of fire plans covering the fixing obstacle.

**Figure 5-2.** Obstacles function versus lethality.

**BLOCKING OBSTACLE**

- VERY HIGH LINEAR DENSITY WITH DEPTH
- GREATER THAN 100% LETHALITY
- FORCES UNIT TO HALT
- DEFEATS ALL OF ATTACKING COMPANY
- DEFEATS ALL BREACHING ASSETS

**TURNING OBSTACLE**

- HIGH LINEAR DENSITY WITH INTERCONNECTED DEPTH
- 60-100% LETHALITY
- FORCES UNIT TO HALT OR BYPASS
- DEFEATS ALL OF ATTACKING COMPANY
- DEFEATS ALL BREACHING ASSETS

**FIXING OBSTACLE**

- MEDIUM LINEAR DENSITY WITH DEPTH
- 30-60% LETHALITY
- DEFEATS A MINIMUM OF ONE PLATOON TO A MAXIMUM OF TWO PLATOONS PER ATTACKING COMPANY
- FORCES COMMITMENT OF 1/3 TO 1/2 OF ALL BREACH ASSETS
- FORCES UNIT TO MOVE IN COLUMN OR BYPASS

**DISRUPTING OBSTACLE**

- LOW LINEAR DENSITY
- 10-30% LETHALITY
- DEFEATS A MINIMUM OF ONE VEHICLE OR A MAXIMUM OF ONE PLATOON PER ATTACKING COMPANY
- FORCES COMMITMENT OF ONE BREACH ASSET
- FORCES UNIT TO MOVE IN COLUMN OR BYPASS

**Figure 5-2.** Obstacles function versus lethality.

***Disrupting***

Disrupting obstacles are used to break up an enemy's formation, interrupt his timetable, cause the premature commitment of breach assets, and piecemeal his attack. This obstacle effect may be used to separate combat echelons or separate combat forces from their logistical support. In close operations, obstacles are normally used just forward of EAs or in support of forward positions within a defensive sector. Control measures covering the disrupting effect combine obstacles and indirect fires against a portion of the enemy to break up the formation

while direct fires mass against the force allowed to bypass the obstacles.

## Reserve

Reserve obstacles are those for which the commander restricts execution authority (road crater and bridge). These are "on order" obstacles. The commander usually specifies the unit responsible for obstacle emplacement, guarding, and execution. The brigade commander must clearly identify the conditions under which the obstacle is to be executed.

Obstacle location is a vital component of obstacle intent since it ties the obstacle effects and target to the scheme of maneuver. Wherever possible, commanders give obstacle locations relative to maneuver or fire control measures to integrate the effects of obstacles.

## Situational

Situational obstacles are obstacles that units plan, and possibly prepare, before beginning an operation; however, they do not execute the obstacles unless specific criteria are met. Therefore, units may or may not execute situational obstacles, depending on the situation that develops during the battle. They are "be prepared" obstacles and provide the commander flexibility for emplacing tactical obstacles based on battlefield development. For further information see FM 90-7.

The primary tool used for countermobility by the force are mines and wire. The mines that are employed by divisional combat engineers are conventional and scatterable mines. For detailed information see FM 20-32. The FASCAM systems are:

- Area denial artillery munition (ADAM) (M731) is an artillery-delivered, AP mine activated by deployed tripwires. A single M483, 155-mm howitzer shell dispenses 36 ADAM mines.
- Remote antiarmor mine (RAAM) (M741) is an artillery-delivered antiarmor magnetically activated by passing vehicles. A single M483, 155-howitzer round dispenses 9 RAAMs.
- Gator (CBU-89/B) is a tactical-fixed-wing-delivered, AP and AT mine system activated by both tripwire and magnetic influence. A single CBU-89/B load will cover an area of 200 by 650 meters.
- Volcano (M87) is a modular mine delivery system for rapid dispensing of AP and AT mines from a five-ton dump truck, the UH-60 helicopter, and the M548A1 tracked cargo carrier. A single Volcano load of 960 mines can produce a minefield 1,110 meters by 120 meters wide.
- The modular pack mine system (MOPMS) is a man-portable, 162-pound, suitcase-shaped mine dispenser that can be emplaced anytime before dispensing mines. When dispensed, 21 (17 AT and 4 AP) mines are propelled in a 35 meter semicircle to the front of the container.

## Obstacle Integration

Obstacle integration creates an inseparable link between fires and obstacles. Neither fires nor obstacles employed by themselves can match the effectiveness achieved by both when they are integrated. Fire control and obstacle planning combine to achieve the commander's intent.



Commanders must establish their obstacle intent concurrent with organizing and developing the fire plan. Each component of obstacle intent directly impacts on the fire plan. Fire control measures are required to maximize obstacle effect. Obstacle planning does not drive fire planning. Both obstacles and fire control measures must be planned, adjusted, and executed to meet the commander's intent.

Each tactical obstacle effect produces a unique result on enemy maneuver and demands unique fire control. The relationship between obstacle effects and fire control must be understood by all echelons.

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## **SECTION IV. BRIGADE COVERING FORCE OPERATIONS**

### **PLANNING**

A brigade may be given a defensive covering force mission when the division has sufficient resources and the intent of the commander is to influence and shape the battlefield forward of the MBA. Covering force operations may run the spectrum from a division cavalry squadron conducting a screen, to a reinforced squadron conducting a guard, to a brigade-controlled element operating independently as a covering force.

A brigade given a covering force mission may consist of the division cavalry squadron, three to five armored or mechanized battalions, and an attack helicopter battalion (see [Figure 5-3](#)). This organization is responsible for inflicting casualties forward, but not to the point of discouraging the enemy from attacking according to its plan. It is important that the covering force shape the battle so that the forces in the MBA can complete the final destruction of the enemy.

The IPB for the covering force operation is extremely important, as the division commander wants to identify the enemy's main effort and location of follow-on forces for the brigades in the MBA. The actual IPB planning is accomplished as it would for defensive operations; however, the S2 has to concern himself with more avenues of approach and a larger number of enemy forces. The S2 plans his IPB with the assistance of the division cavalry squadron and attack helicopter battalion S2s, who may have their own specific intelligence needs. They are used to work in operations with a divisional scope. They may provide valuable input in terms of the special considerations inherent to covering force operations of which the brigade S2 (as an MBA player) may not be aware.

The brigade FS plan is essential to the commander and his projection of firepower to the enemy in depth. In particular, he wants the FS plan to separate enemy echelons so that they can be defeated one at a time. Further, along the axis of the enemy's secondary effort, FASCAM and interdicting fires are planned to complete the enemy's loss of momentum. The actual planning and coordination of the fire plan occurs as for any brigade defensive operation with one exception: the artillery will not only accompany the covering force but also fire exclusively in its support. Therefore, the FS plan is prepared with more certainty in terms of the amount, timeliness, and sustainment of fires.

The obstacle plan is developed concurrently with the FS and maneuver plans. Given the frontage in which the brigade must operate, the ability of the engineers to construct barriers is

limited to carefully selected targets designed to enhance the effect of both direct and indirect fires. Larger obstacles designed to turn and shape the enemy's maneuver simply may not be possible unless the brigade receives large amounts of engineer support.

The brigade S4 and the FSB commander must be prepared to support the covering force forward of the MBA. However, due to the fluidity of the operation and the knowledge that the covering force conducts a rearward passage of lines at the completion of the mission, CSS assets remain mobile so as not to impede the movement of the covering force. To accomplish this, the BSA consists of only those essential activities determined by the FSB commander within the guidance of the brigade commander. This lighter and more mobile FSB should be oriented on evacuation of casualties and damaged equipment, resupply of Classes III and V, and to a limited extent, vehicle and weapon maintenance. Coordination is made with the support systems of MBA brigades to augment the evacuation of casualties and vehicles through AXP and UMCPs, which are positioned where the depth units can assist in the evacuation.

Much of the command and control of the covering force battle is decentralized due to the distances covered and the decisions each battalion task force or squadron commander (SCO) is required to make during the operation. The brigade commander wants to position himself and the TAC CP in the sector adjacent to the enemy's main effort, as this is the most critical area of the battlefield. The S3 observes the enemy's secondary effort and ensures that he maintains communication with the brigade commander. Due to the lack of an additional headquarters element to accompany the S3, he collocates with the battalion task force or squadron main CP. In this manner, he ensures communications with the brigade main CP and the TAC CP without degrading his mobility.

## **PREPARATION**

The commander ensures that his intent is understood and that his subordinates can execute as a team without further guidance. He ensures that he controls the operation and maintains flank coordination through every phase. He rehearses the synchronization of the counterattacks and engagements in main kill zones. He checks the TDIS analysis against the DST to ensure that his forces can arrive at the decisive point of the battle at the correct time. In particular, he exercises the execution of brigade priority targets and reserve demolitions to ensure that they contribute to the effectiveness of the plan as desired. Finally, the commander reviews the coordination necessary to effect the rearward passage of lines at the completion of the operation.

The covering force reserve, whether ground or air, rehearses how it plans to maneuver to each sector. This determines if there are any conflicts between the obstacle plan and the counterattack plan. Similarly, the air routes used by the attack helicopters should be checked against the FS and air defense plans. Airspace coordination measures should be coordinated through the division A2C2 element in the division TOC.

The brigade S4 and FSB commander conduct a CSS rehearsal coincidentally with the maneuver rehearsal. The ability of the support elements to sustain the force during combat is essential to the success of the operation. In particular, the support players verify that the MSRs

and lateral supply routes remain unencumbered by the obstacle plan and that support elements reach each maneuver element. Prestocks and LRPs should be checked against BP locations. Linkage with CSS elements from the MBA should be checked to ensure coordination is complete. If possible, representatives from the MBA attend the rehearsal.

## EXECUTION

As the enemy's reconnaissance elements reach the CFA, they are engaged and destroyed by the battalion task forces and cavalry squadron. Whether their mission is to defend or delay, it is essential to blind the enemy divisional commanders by stripping away their ability to collect information. The commander closely monitors the front line trace of the covering force to ensure that his subordinate commands maintain flank coordination throughout the operation. In particular, he ensures that the battle is being shaped according to the plan. Therefore, in the center and right sectors where the battalions have been given a defend mission, he must be prepared to divert assets to augment their lethality. In this regard, the ground reserve must be prepared to block enemy penetrations or reinforce the defensive positions while attack helicopters may be called forward to inflict casualties in the depth of the EA.

As the covering force moves closer to the MBA, the brigade commander coordinates with his counterpart brigade commanders. The main CP and TAC CP collocate with the MBA brigade CPs in preparation for the rearward passage of lines. Maneuver elements from the MBA are alerted to cover the rearward passage of the covering force, and a battle handover line (BHL) is confirmed. The covering force fights and withdraws to positions within the protection of the MBA forces. At this point, massive combined arms fires should be brought to bear against the lead enemy elements. This temporary enemy paralysis should allow the complete passage of the covering force, free of significant enemy pressure and the intermingling of forces.

The artillery plan is executed in the same manner as in a defense or delay. A significant difference is that as the covering force moves closer to the MBA, the covering force fire support officer coordinates with the MBA brigade FSO for positioning of the covering force's DS battalions.

The covering force engineer monitors the operation, paying special attention to the execution of target turnover and brigade reserve demolitions. In particular, he advises the commander during the course of the battle concerning techniques to further slow enemy momentum if required. For example, he coordinates with the brigade FSO for the emplacement of ADAMs/RAAMs and with the S3 to ensure the obstacle is covered by fire. As the force moves closer to the MBA, obstacles take on increasing importance in helping the covering force maintain separation from the enemy. If the BHL is placed along a natural obstacle, such as a river, prepared bridge demolitions or armored vehicle launched bridge (AVLB) or heavy assault bridge (HAB) crossings sites should be monitored to ensure their execution following the crossing of the last maneuver element. Subordinate commanders report execution to the covering force main CP so that the brigade commander can verify the safe crossing of his maneuver elements and the inability of the enemy to maintain pressure.

The brigade S4 continually coordinates with the FSB commander to ensure that CSS operations are executed according to plan. He coordinates with the engineers to monitor the

road conditions and the status of any bridges and coordinates for the implementation of on-order MSRs or other alternate routes depending on the situation. He also keeps abreast of the expenditure of Class III and Class V and of emergency resupply vehicles moving to units heavily involved in combat. As the covering force nears the MBA, the S4 also coordinates with the MBA brigade S4s. The control depends on the ability of recovery and evacuation assets to tow disabled vehicles to the rear and to keep the egress routes open. Assets from the MBA may assist in this effort, freeing the brigade's equipment for use in the forward area of the covering force battle.

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## **SECTION V. US NIGHT DEFENSIVE DOCTRINE**

### **PLANNING AND PREPARATION**

As in all night operations, the night defense takes more time, detailed planning, preparation, rehearsals, and coordination than daylight operations.

### **ADVANTAGES AND DISADVANTAGES**

The advantages and disadvantages of a defensive operation at night are parallel to those identified for night offensive operations in [Chapter 4](#).

### **TACTICAL PLANNING CONSIDERATIONS**

The following is a list of tactical planning considerations, by BOS, that are different for a night offensive operation when compared to a daylight offensive.

#### **Intelligence**

Assign scouts to assigned smaller, critical areas to observe, such as NAIs and TAIs.

Coordinate all reconnaissance activity in detail. This precludes friendly fire and fratricide between subunits. The FSO must also monitor calls for fire to prevent one unit from engaging another.

Increased use of remote sensors and GSRs covers areas no longer visible at night.

#### **Maneuver**

Security operations by all units is the key to maintaining the integrity of the defense. Night amplifies the defender's vulnerability.

Rehearse moving in darkness.

Set an observation plan for each EA, delineating what number and mix of observation devices are used.

#### **Fire Support**



Plan and support counterbattery fires to take away the use of illumination.

Survey and register final protective fires (FPF) in daylight.

Centralize authority for the use of illumination by weapon type and duration.

Smoke magnifies the effect of darkness on the attacker's formations and on his image intensification devices.

Adjustment of fires is inaccurate if only visual means are employed.

## **Mobility and Survivability**

FASCAM is more effective at night; it can be emplaced rapidly and is difficult to spot.

Increase engineer work time as light decreases.

Provide engineers with security forces at night.

Sound travels farther at night. Use sound to deceive or cover by artillery fire.

## **Air Defense**

Give assets point (critical) targets to defend, rather than area targets.

The pairing of systems with IFF capability with those that do not have it allows both systems to engage targets.

## **Combat Service Support**

The threat to rear areas increases at night; therefore plan CSS accordingly.

Rehearse MEDEVAC routes in the dark.

Class I served between 0200 and 0400 hours counters the physiological "low" of the body.

Plan increases in supply rates for flares, illumination rounds, batteries, light sticks, smoke pots, wire, and general ammunition in advance.

## **Command and Control**

Control measures are usually more restrictive at night. These include routes to and from BPs, light lines, and no-fire zones.

Wire is the preferred communications method, followed by messenger, radio, visual signals, and event-oriented plans.

Communications plans for recon teams must be rehearsed prior to sending personnel and equipment out.

Use GSRs to vector moving units, such as patrols, LPs/OPs, and scouts.





# FM 71-3

## The Armored and Mechanized Infantry Brigade

### CHAPTER 6 OTHER TACTICAL OPERATIONS

Other tactical operations encompass a wide range of special purpose operations undertaken routinely during offensive and defensive operations. While not the main focus, these other tactical operations must be synchronized.

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## SECTION I. LINKUP OPERATIONS

### GENERAL

Linkup operations to join two or more friendly forces are conducted to:

- Complete the encirclement of an enemy force.
- Assist breakout of an encircled friendly force.
- Join an attacking force with a force operating in the enemy's rear area.

### FORMS OF LINKUP

Regardless of the purpose of the linkup, in execution, the operation takes on one of two forms:

- Linkup of a moving force and a stationary force.
- Linkup of two moving forces.

### Linkup of a Moving Force with a Stationary Force

To ensure the forces join without engaging one another, linkup points are selected at locations

where the axis of advance of the linkup force intersects the security elements of the stationary force (see [Figure 6-1](#)). These points must be readily recognizable to both forces. Alternate points are chosen in the event enemy activities cause linkup at places other than those planned. The number of linkup points selected depends on the terrain and number of routes used by the linkup force. Personnel in the linkup force must be thoroughly familiar with mutual identification procedures and plans for rapid passage of lines. Stationary forces assist in the linkup; they open lanes in minefields, breach or remove selected obstacles, furnish guides, and design assembly areas. Use of a common radio frequency enhances coordination and responsiveness between executing forces.

## **Linkup of Two Moving Units**

Linkup between two moving units is one of the most difficult operations (see [Figure 6-2](#)). It is normally conducted to complete the encirclement of an enemy force. Primary and alternate linkup points for two moving forces are established on boundaries where the two forces are expected to converge. As linking units move closer, positive control must be coordinated to ensure they avoid firing on one another and to ensure the enemy does not escape between the two forces. Leading elements of each force should monitor a common radio net.

## **Actions Following Linkup**

When the linkup is made, the linkup force may join the stationary force or may pass through or around to continue the attack. If the linkup force is to continue operations with the stationary force, a single commander for the overall force should be designated. Plans for these operations must be made in advance. If the linkup is made under conditions of nuclear warfare, objectives for the linkup must provide for dispersion in relation to the stationary force. The linkup force may immediately pass through the perimeter of the stationary forces, be assigned objectives within the perimeter, or be assigned objectives outside the perimeter, depending on its mission.

When a brigade directs a linkup operation, it normally establishes a restrictive fire line (RFL) for both forces. RFLs are adjusted as one force moves toward the other until one RFL is established between the forces when necessary, usually at the point where the two forces plan to establish contact.

## **PLANNING**

The linkup is a complex operation requiring detailed planning and coordination. The following paragraphs describe the importance of planning the linkup.

Plans for a linkup are coordinated as far in advance as possible. The two forces carefully define and coordinate their schemes of maneuver with particular attention given to graphic control measures and the subsequent mission to be performed by each force after linkup is complete. Alternate linkup points are planned to provide needed flexibility.

- Liaison is normally established during planning and continues throughout the operation. As the distance closes between the forces, the requirement to maintain close liaison increases. Use of aircraft can improve and expedite this coordination.

- Linkup operations frequently require a passage of lines. Once through the friendly lines, the brigade moves out as in an exploitation to effect the linkup. The action is characterized by speed, aggressiveness, and boldness. Enemy forces that threaten the successful accomplishment of the mission are destroyed. Others are bypassed and reported. If possible, the linkup force avoids interference with its mission and concentrates its efforts on completing the linkup. (For a complete discussion of passages of lines, see [Section III](#) of this chapter.)

The headquarters directing the linkup operation must establish command relationships and responsibilities of the forces involved. Both the linkup force and the force with which linkup is to be made can remain under control of the directing headquarters.

The communication plan includes the channels for radio communication between the two forces. It must prescribe day and night identification procedures, including primary and alternate means. Aircraft can be used to extend communications range. Visual signals such as flares or panels may be used during daylight, and flashlights or infrared devices may be employed during darkness.

To prevent friendly troops from exchanging fires, recognition signals must be established. They may be pyrotechnics, arm bands, vehicle markings, panels, colored smoke, distinctive light patterns, and passwords.

Logistical support requirements may be greater during linkup operations than during other offensive actions. Additional considerations for planning logistical support in linkup operations include:

- Distance to the objective area.
- Time the objective area is to be held.
- Planned operations or movement out of the objective area.
- Resupply of the stationary unit.
- Movement of support assets of airborne or air assault units involved in the linkup.
- Whether brigade LOC will be secured by follow-on units.

Supply requirements for a linkup operation may exceed the transportation capability of the brigade. The brigade may have to request additional vehicles or resupply by air.

In linkup operations with airborne and air assault units, priority for supply by air is given to the units assaulting the objective area. Supplies for the linkup forces normally move by land transportation. However, when the objective area is to be defended jointly by the linkup and airborne or air assault force, supplies for the linkup force may be flown into the objective area and stockpiled.

Evacuation of equipment and EPWs may create major problems for the linkup force. If supply routes are open, the normal evacuation procedures apply. When ground routes are not secure, helicopters may be used for evacuation of wounded while damaged equipment may be moved forward with the linkup forces until a suitable opportunity for evacuation is available.

## PREPARATION



Due to the time-sensitive nature of the operation, the commander issues his order and attempts to at least walk the battalion task force commanders through the operation. He particularly stresses the linkup and the coordination required to effect the linkup without confusion. Moreover, he ensures that each battalion commander is prepared to respond to an enemy meeting engagement or attack coincidental to the linkup. The brigade commander's major concern is that his subordinate commanders do not lose sight of their objective - the linkup.

The brigade FSCoord ensures that the counterpart force in the linkup operation, whether moving or stationary, has the FS plan. Specifically, he ensures all FSCMs are completely understood by both forces. Further, if these control measures are moved during the operation, the conditions and signals under which the change takes place must also be coordinated.

The trains organize as for any offensive operation; however, as mentioned earlier, they carry additional supplies and materiel if the force with which they are conducting the linkup has been encircled. Generally, this includes Classes I, III, V, and VIII items. The brigade S4 also ensures that each battalion task force understands the MSR and alternate MSR plan, to include traffic control. In particular, he pushes as much materiel forward as possible during the operation. This is because the brigade will expend resources during the attack and any other mission that may occur after the actual linkup.

## EXECUTION

The initial conduct of the linkup is identical to a movement to contact or deliberate attack, depending on the enemy situation. As the brigade begins its maneuver, it attempts to establish and maintain contact with its corresponding friendly force. Each force monitors the progress of the other, making adjustments to the plan as necessary. For example, if the linkup force is unable to travel at a speed commensurate with the plan, yet the breakout force is making a very rapid advance, the location of the linkup point may be moved closer to the linkup force. Similarly, the FSCM is also moved.

As the two forces draw closer, the battalion task forces are advised by the brigade. If possible, the battalion task forces in turn also attempt to establish contact on a predesignated frequency to control the actual linkup. At this point, the momentum of the operation slows to help prevent fratricide. The tradeoff may be that some enemy forces may slip between the two closing forces. Coordination signals are then used to identify each force as they approach the linkup point.

FSCMs are changed or emplaced based on the progress of the forces and the enemy situation. Specifically, the CFLs are cancelled. An RFL is also placed into effect to prevent fratricide between the converging forces. Once the linkup has occurred, the FS for the brigade and its linkup force is organized as per the higher headquarters plan for future operations.

The commander positions himself to observe the progress of the operation. Generally, this means that he follows the lead battalion task force. If a particular flank is of concern during the operation or a supporting attack is required to penetrate the enemy's lines, then the brigade S3 places himself where he can observe the brigade's secondary action. The commander and S3 must remain in communication throughout the battle, using the main CP, if necessary, to relay messages. In particular, the commander must maintain the tempo of the operation, because



once the force becomes stalled, it is very difficult to get it moving again. Therefore, he must have the ability to move forward from time to time to spur on his lead element.

The commander also monitors the action to ensure control measures that he established in planning the operation are still valid. He issues a FRAGO for changes as necessary. He attempts to remain in communication with his counterpart commander throughout the operation.

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## **SECTION II. RELIEF IN PLACE**

### **GENERAL**

A relief in place is an operation in which a unit is replaced in combat by another unit. The responsibilities for the combat mission and the assigned sector or zone of action of the replaced unit are assumed by the incoming unit. A relief in place may be conducted during offensive or defensive operations and during various combat and OOTWs and during all weather and light conditions. The primary purpose for a relief in place is to maintain the combat effectiveness of committed elements and should be conducted during a lull in combat if possible. A relief in place may be conducted to:

- Introduce a new unit into combat.
- Reconstitute a unit.
- Allow a unit to rest.
- Decontaminate a unit.
- Change the mission of a unit.
- Replace a peace enforcement unit with a peacekeeping unit.

### **PLANNING**

Considerations for a relief in place are

- Units are normally relieved at night or during periods of limited visibility.
- Detailed prior reconnaissance by the incoming unit is essential.
- The incoming unit must fit into and accept the general defense plan of the outgoing unit until passage of command.
- Normal patterns of activity should be maintained.
- CS and CSS units normally should not be relieved at the same time as the units they support.

When a unit relieves another unit in place, the WO to the incoming unit must specify, as a minimum, the time for commencing and completing the relief and the priorities for use of routes involved. The two units conducting the relief must agree on procedures for accomplishing the items listed in the following paragraphs.

### **Exchange of Plans and Liaison Personnel**

The incoming brigade commander and staff must be briefed and become thoroughly familiar with existing defensive plans. The outgoing brigade leaves liaison personnel with the incoming brigade. These personnel usually remain until the incoming units become familiar with the situation.

## **Sequence of Relief**

The relief in place is executed by stages, either rear to front or front to rear. In determining the sequence of the relief, both commanders should consider the

- Subsequent mission of the brigade conducting the relief.
- Strength and combat efficiency of the brigade presently in place.
- Capability of the enemy to detect and react against the relief.
- Characteristics of the AO.

## **Passage of Command**

The time or circumstances under which the incoming commander assumes responsibility for the area must be clearly established by both commanders. During the relief, the outgoing commander retains responsibility for the area and mission and exercises OPCON over all subordinate elements of the incoming brigade that have completed their portion of the relief. Responsibility passes to the incoming commander when all the battalions in the forward defense area have been relieved and adequate communications have been established.

## **Reconnaissance**

Commanders and staff officers of all echelons of the incoming brigade conduct a thorough daylight reconnaissance.

A relieving unit reconnaissance element should include the brigade commander, the S3, S2, an LO, the FSO, battalion commanders, the S1/S4 party, and at least a tank or mechanized platoon for a security force. The relieved force commander should initially select at least two routes and contact points for the incoming unit. The incoming unit's reconnaissance and liaison element with the TOC and trains must move to the relieved unit's location immediately upon receiving the order from higher headquarters.

## **Security**

All echelons of the incoming and outgoing units must prevent the enemy from learning that a relief is taking place. In addition to conducting the relief during periods of reduced visibility, the following security measures should be taken:

- Restrictions on the size of advance parties and reconnaissance parties must be enforced.
- Communications during the relief are conducted on the command frequency of the outgoing unit until the relief is complete.
- OPSEC is maintained throughout the operation.

## Movement Control

Arrangements must be made between the incoming and outgoing units for control of units moving into and out of the area. Coordination must include:

- Routes to be used and priorities for their use.
- Responsibility for traffic control.
- Location of assembly areas.
- Common use of transportation, if necessary.

If terrain and road network allow, relieving and relieved units should be assigned separate routes and assembly areas to reduce congestion and to minimize massing of combat power. See [Figure 6-3](#) for relief in place overlay techniques.

The method of relieving FS units must be clearly established by the two FSCOORDs. Normally, the FS units of the outgoing unit remain in position until the units in the forward defense have been relieved. By using this procedure, FS units that are familiar with the FS plans and the area are in position to fire during the critical period of the relief of forward units. Once FS plans are passed and coordinated, OPCON is not transferred until the maneuver unit is in place and has control.

Similar to a linkup operation, units coordinate information on obstacle intelligence and other engineer related intelligence. The brigade engineer becomes familiar with the existing defensive plans and considers making adjustments based on the subsequent mission. He makes plans to conduct a reconnaissance of the area and confirm the location, status, and integration of tactical obstacles.

In addition to conducting the relief of air defense assets in sector, the primary mission of ADA units is to provide increased coverage over all primary relief routes in sector. These tasks are accomplished jointly, and actual relief of ADA units is not scheduled until the relief of all maneuver units has been accomplished.

CSS relief is just as complicated as the tactical relief and requires the same degree of detailed planning; however, CSS relief probably occurs before the combat units execute to allow the relieved unit's FSB an opportunity to establish operations in preparation for the relieved unit's recovery. Therefore, the same considerations and operations apply to the brigade's CSS.

Rear CPs and FSB CPs of each unit collocate as do the CPs for each battalion's field trains. Some supplies are transferred to the relieving FSB (such as ATP stocks [main gun ammunition], engineer materiel, and possibly Class I [T-rations]). The factors of METT-T are examined to determine if the relieving FSB can occupy an adjacent position or must use the existing support locations. Separate routes are coordinated by the relieving and relieved units to avoid two-way traffic

## PREPARATION

A relief is executed in stages to ensure the most effective defense during the relief. As an example, reserves may be relieved first, followed by relief of forward elements. Normally, when

minimum forces are employed on the FLOT, the relief is conducted from rear to front; when maximum forces are employed on the FLOT, the relief is conducted from front to rear. In determining the sequence of the relief, commanders should also consider:

- Strength and condition of elements in the relief.
- Subsequent missions of relieved and relieving units.
- The enemy situation and the capability of the enemy to detect and react against the relief.
- Characteristics of the AO.
- The need to vary the pattern of relief.

When sequence of relief has been determined, the commander then selects the method of relief for forward units. His choices include:

- Relief of the first of two forward task forces, to be completed before relief of the third task force, begins when two task forces are employed forward.
- Relief of two flank task forces simultaneously followed by the center task force when three task forces are employed forward.
- Relief of the center task force followed by the simultaneous relief of the flank task forces when three task forces are employed forward.
- Relief of all forward task forces simultaneously.

In analyzing these methods, the commander should consider:

- The enemy situation and capability of the enemy to detect and react against the relief.
- The characteristics of the AO.
- The time available for accomplishing the relief.
- The acceptable degree of concentration of forces.

Generally, simultaneous relief of all elements is the fastest option; however, it is also the least secure and the most difficult to control. Sequential reliefs involve only one element at a time; they are the slowest and most secure method and also the easiest to control. When relieving an element in a hide position, the incoming unit should occupy an adjacent position, if possible.

Because of the difficulty in accurately laying weapons at night, commanders of the incoming and outgoing units arrange for the mutual exchange of crew-served weapons that cannot be easily moved or that can, when necessary, ensure the effective delivery of fires. The exchange is on a weapon-for-weapon basis. The authority for this exchange is included in the relief order of the next higher commander.

Intelligence and obstacle overlays are posted and disseminated. Further exchange of target folders, status of obstacles, emplacement of conventional and scatterable minefields, and reports of enemy minefield emplacement must be accomplished.

[Figure 6-4](#) depicts radio nets employed during the relief.

## EXECUTION

During the relief, commanders at each echelon are together at the CP or OP of the outgoing



unit. The incoming unit commander assumes responsibility for the defense when the majority of his unit is in position (or as agreed upon by the two brigade commanders) and command and control systems are established, at a time previously designated by the next higher commander. All units in position, regardless of their parent organization, come under the OPCON of the present commander if the sector comes under attack.

To limit confusion inherent in a relief and to avoid excessive massing, adjacent teams of task forces are not normally relieved at the same time. Elements of the outgoing battalions leave the area as soon as they are relieved and control is established.

Generally, the brigade does not permit battalions to designate assembly areas for units larger than company size. These company assembly areas are, in turn, separated as much as possible to minimize vulnerability to enemy fires. Delays within assembly areas are avoided by precise planning, timing, and execution.

In the conduct of the relief, mechanized infantry dismounts far enough to the rear to avoid compromising the relief and move forward to effect the relief on foot. The carriers move forward after completion of the relief by dismounted troops. Outgoing mechanized units exfiltrate carriers prior to relief, providing such action does not compromise the relief; otherwise, the carriers of the outgoing units do not move until the relief is completed.

At the brigade level, the relief is managed through the reports of the battalion task forces. Specifically, the main CP monitors the progress of each battalion task force, recording when each battalion has transferred command and when the relief is complete.

During the conduct of the relief, enemy contact is possible. If a relieved or relieving unit gains contact with an enemy force, it immediately notifies the other unit and the higher headquarters directing the relief. If command has not passed, the relieving unit comes under OPCON of the relieved unit, is absorbed into the relieving unit's positions, and continues normal radio traffic.

The brigade FSO monitors both the enemy situation, to which he may be required to respond with indirect fire, and the relief of the artillery units. Generally, FS assets are one of the first elements to collocate and the last to leave. Both relieving units and those being relieved fire in support of the operation. The relieving FA reinforces the fire of the artillery unit being relieved.

The incoming and outgoing engineer commander link up and monitor the handover of reserve targets and other overlays, verifying the status of tactical obstacles. Particularly in the case of lanes through minefields or other obstacles, it is important that the lanes are confirmed to facilitate the passage of reconnaissance forces.

Having already conducted the relief of the BSA, the CSS should be the same as for any defensive operation. With the possibility of enemy contact, the BSA must be prepared to initially support a force that may also include a significant portion of the relieved brigade. It is important for the relieved BSA to leave behind ATP stocks, engineer supplies, and Class I.

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## SECTION III. PASSAGE OF LINES

### GENERAL



The coordinated movement of one or more units through another unit is a passage of lines. A brigade passage of lines is a complex operation requiring detailed coordination, extensive planning, and close supervision between brigades. A passage of lines may be designated as a forward or rearward passage of lines (see [Figure 6-5](#) and [Figure 6-6](#)). The primary purpose of a passage of lines is to maintain the movement or maneuver of units. This operation is necessary when the factors of METT-T do not permit one unit the freedom of bypassing another friendly unit and therefore must pass through it. A passage of lines may be conducted to:

- Continue an attack or counterattack.
- Envelop an enemy force.
- Pursue a fleeing enemy.
- Withdraw covering forces or MBA forces.

## PLANNING

The division or corps commander is responsible for planning and coordinating a brigade passage of lines. Certain basic considerations must be integrated into the planning process:

- Plans for the conduct of the passage must facilitate transition to the subsequent missions of both the passing and stationary brigades.
- Control of the zone or sector passes from one brigade to the other at a time and place directed by the higher common commander or mutually agreed upon by the stationary and passing brigade commanders.
- The passing brigade moves on multiple routes through the passed brigade and avoids the use of assembly areas. It does not halt within the passed brigades forward positions.
- Plan deception and smoke at dummy and actual unit locations and PPs.
- Integrate CS and CSS assets of the stationary brigade into the plan to support the movement of the passing force.
- Establish stringent graphic control measures to ensure a smooth passage.

One of the most critical aspects of a passage of lines is terrain management. The passing brigade's S3 coordinates with the stationary brigade's S3 to receive information concerning the disposition of friendly forces within the stationary brigade's AO. Unoccupied areas may represent possible locations to station future units of the passing brigade. With the IPB complete and a thorough understanding of the restrictions presented by location of the stationary brigade, the S3 prepares his tentative plan within the parameters established by the brigade commander. The S3 also examines the location of the contact points to determine whether they are compatible with the scheme of maneuver.

Once the contact points have been finalized, the S3 coordinates with the stationary force's S3 to establish the location of the passage lanes. Remember that the physical characteristics and number of the passage lanes determine the speed and disposition of the passing force as it crosses the LD. Therefore, when conducting a forward passage in preparation for a deliberate attack, it may be important to create passage lanes with sufficient width to allow the passing force to move in a tactical formation appropriate to the operation, such as company columns or a platoon wedge.

The brigade FSCoord and FSO begin by examining the FS plan of the stationary brigade. Direct coordination between the two FSEs is critical. A clear FS battle handover or transfer of control must be identified and approved by the maneuver commander.

As noted earlier, terrain management becomes especially important because of possible requirements to plan space for additional artillery batteries and their support assets. Coordination with the stationary brigade's S3 is especially important to ensure that the artillery positions itself properly to support the attack. If a reinforcing FA unit is involved, it is critical to ensure that they are integrated into the plan.

Mobility and terrain management is a major concern. The passing brigade engineer coordinates with the stationary engineer concerning the following:

- Threat engineer intelligence.
- Location and status of tactical obstacles.
- Location of lanes and bypasses.

The selection of passage lanes should be influenced by the location of friendly obstacles. Some obstacles may have to be reduced to facilitate the movement along designated routes. In this regard, coordination for the opening and closure of lanes must be made at the contact points.

In planning a passage of lines, air defense is absolutely essential. Whether passing forward or to the rear, the moving unit is forced to move slower and often in some type of column formation during the passage. Congestion in assembly areas either before or after the passage and the linear nature of the movement present a lucrative target to hostile aircraft. As a result, air defense must be coordinated with the stationary unit. In many cases, the stationary brigade will be able to protect the passing force, allowing the passing force's supporting air defense assets to move with them. However, if the passing force requires static air defense, the terrain has to be coordinated with the stationary brigade's S3. Coordination should also be made to incorporate the moving force's ADA assets into the stationary force's air defense early warning net.

The CSS plan is an essential part of the passage of lines. CSS assets should be positioned to support the passage. UMCPs and emergency refueling points should be positioned where they can best keep the lane open and vehicles moving. [Figure 6-7](#) shows the CSS plan for a rearward passage of lines.

The collocation of headquarters in preparation for the passage of lines may be accomplished in several ways. The situation and terrain determine, for the most part, which type of collocation is best.

## PREPARATION

The brigade commander and staff should wargame to ensure he has considered contingencies in the event of enemy contact during the passage of lines. The brigade prepares for the passage of lines by conducting a rehearsal. Generally, forward passages of lines may be incorporated into the offensive maneuver rehearsal. In a rearward passage of lines, however, (particularly following combat) there may not be time to conduct a complete level three

rehearsal. In this case, the passage must be "rehearsed" as part of the orders confirmation brief.

The FS plan is rehearsed along with the passage rehearsal. In particular, the FSO must know when he may rely on the supporting fires of those batteries that are supporting the stationary force. The location of each battery in support of the passing brigade should be checked again with the stationary brigade's S3 to avoid any conflict during execution.

The brigade engineer ensures commanders understand the location and description of friendly obstacles along the passage lane. At the rehearsal, he covers lane marking and actions taken at the obstacle crossing. He also discusses the engineer scheme for the follow-on mission.

The air defense plan should be exercised during the passage rehearsal. Specifically, communications between the passing and stationary units should be checked to ensure that both are operating on the air defense early warning net.

The CSS plan should be rehearsed to ensure that the required support assets are properly positioned to assist in the passage. Moreover, the rehearsal should exercise the support system to identify any possible weaknesses in the responsiveness of the support plan. Movement of the BSA and other support assets occur as necessary before actual execution of the passage.

During the rehearsal, the commander ensures that each organization knows when and where to move as well as how to execute the required coordination. The TAC CP or TOC (or other designated headquarters element) collocates with the stationary brigade's main CP and conducts communications checks. Quartering parties from subordinate elements also move in preparation of the rearward passage.

## **EXECUTION**

The commander monitors the operation from the initial actions at the contact point to the last element's final passage. The actual coordination at the contact points is handled by the battalion task force. Whether conducting a forward or rearward passage of lines, the key aspect of the passage is when to transfer control of the sector/zone.

Until transfer of responsibility of the zone or sector occurs, all indirect fire missions are coordinated and approved by the FSO who initially controls that area (most likely the stationary force).

The brigade engineer links up with the stationary engineer at the contact point and monitors the passage. He confirms the locations of obstacles and marked lanes or bypasses along passage lanes.

The primary mission of the CSS assets is to ensure unimpeded movement of the passing force. Maintenance assets are on call to remove and repair any vehicle disabled during the movement. Additionally, emergency resupply of POL is on standby to support as required. The stationary unit should provide the bulk of the support at the PP; however, the passing unit must be prepared to augment these assets as required.



The collocation of the TOCs ensures that the necessary information exchange occurs during the passage of lines. In particular, the passing brigade commander positions himself where he can best observe the conduct of the passage while retaining the ability to quickly join the force for future operations.

As each element reaches the contact point, the information is relayed to the collocated headquarters. The location of each element must be closely watched to ensure that delays by passing units do not have a negative impact on other forces. Should the passage occur slower than planned, FRAGOs are issued to the units waiting to pass, simply pushing back their time of execution. Units should remain in their assembly areas until it is time to move, rather than move to the contact point and wait in line.

## **BATTLE HANDOVER**

A battle handover is a coordinated operation between two units that transfers responsibility for fighting an enemy force from one unit to the other. It is executed to sustain continuity of the combined arms fight and protect the combat potential of both forces involved. Battle handover is usually associated with conducting a passage of lines. Battle handover and passage of lines are inherent aspects of transferring responsibility for the battle between commanders while maintaining continuity of the fight.

Battle handover may occur during both offensive and defensive operations. During defensive operations, it is normally coordinated in advance so it requires minimum coordination when ordered to occur. In the offense, it is often initiated by a FRAGO based on the situation. Clear TSOP allow units to quickly establish necessary coordination to preclude a loss of momentum in the attack. Use simple and standardized control measures.

There are three key players involved: the stationary commander, the passing commander, and their higher commander. Each commander has certain responsibilities. The higher commander defines the location and time for the handover and any specified tasks, receives confirmation briefs from both commanders, and monitors the execution during the handover. The passing and stationary commanders coordinate according to the TSOP and execute the handover. Until the handover is complete and acknowledged by the two commanders, the commander in contact is responsible for the fight. The higher commander specifies where the handover occurs and defines the resulting responsibility for the zone or sector.

Handover occurs along a line forward of the stationary force. The line is established by the higher commander in consultation with both commanders. The stationary commander has the major determination in the BHL location. This line is forward of the FEBA in the defense or the FLOT in the offense. It is drawn where elements of the passing unit can be effectively overwatched by direct fires of the forward combat elements of the stationary unit until the battle handover is complete.

While a line defines the battle handover, seldom do events allow this to happen cleanly. Physical handover should be viewed as a transition that occurs in the zone of BHL. Events may dictate that a force break contact forward of or behind the BHL, as in the gap between echelons of the attacking enemy force. Close coordination, physical and by radio, between the two units involved in the handover allows them to coordinate and execute this process at the small unit

level. The stationary unit is just as active as the passing unit.

Battle handover begins on order of the higher commander of both units involved. Defensive handover is complete when the passing unit is clear and the stationary unit is ready to engage the enemy. Offensive handover is complete when the passing unit has deployed and crossed the BHL. The BHL is normally considered the LD for the attacking unit.

Coordination for the battle handover normally flows from the commander out of contact to the commander in contact. The coordination for a battle handover overlaps with the coordination for a passage of lines; the coordination for both should be done simultaneously. This coordination is best established as a TSOP to facilitate rapid accomplishment. Coordination includes:

- Establishing communication.
- Providing updates on both friendly and enemy situations.
- Coordinating passage.
- Collocating command and control.
- Coordinating all fires (direct and indirect).
- Dispatching representatives to contact points.
- Establishing recognition signals.
- Determining status of obstacles and routes.
- Determining CS and CSS requirements.

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## SECTION IV. RETROGRADE OPERATIONS

### GENERAL

A retrograde operation is an organized movement to the rear or away from the enemy. The operation may be forced by enemy action, or it may be executed voluntarily. In either case, it must be approved by the higher commander.

### DELAY

#### Planning

A delaying action is an operation in which maximum delay and damage are inflicted on an advancing enemy without the delaying force becoming decisively engaged in combat. A brigade may conduct a delay as part of:

- A covering force for defending or withdrawing main bodies.
- An advance guard or covering force when encountering superior forces.
- An economy-of-force operation conducted to fix or contain an enemy attack on a less critical avenue of approach.
- A deception measure to set up a counterattack.
- A defense.



As a delaying force, the brigade must:

- Provide the required period of delay.
- Preserve the integrity of the battlefield by always maintaining contact with the enemy.
- Cause the enemy to plan and conduct successive attacks.
- Preserve the force, ensuring the delay mission is accomplished. A portion of the brigade may be required to accept decisive engagement to accomplish the delay mission.
- A delay differs from the defense in that it is not necessarily intended to achieve complete destruction of the enemy. The delaying unit avoids decisive engagement. A delaying action is characterized by operations on a wide front with maximum forces in contact and minimum in reserve. A delay is more difficult than a defend mission. For these reasons, there are key considerations that must be applied when executing a delay:
  - Centralized control and decentralized action. A delay results in a series of independent unit actions across the front in which each commander must be permitted freedom of action in engaging the enemy within the context of the commanders intent. In the conduct of the delay, the unit must maintain enemy contact and closely coordinate flank security.
  - Maximum use of terrain. Delay positions should be located on terrain features that control the likely enemy avenues of approach.
  - Forcing the enemy to deploy and maneuver. Engagement at maximum ranges of all weapons causes the enemy to take time-consuming measures to deploy, develop the situation, and maneuver to drive the delaying force from its position. An aggressive enemy commander will not deploy if he correctly determines that friendly forces are delaying; he simply uses his mass and momentum to develop sufficient pressure to cause friendly forces to fall back. Therefore, the delay must be sufficiently tenacious to leave him in doubt about the friendly mission. When the enemy commander believes he has encountered the main friendly defenses, he then deploys.
  - Maximum use of obstacles. Reinforcing and existing obstacles are used to canalize and slow enemy forward progress and provide security to the flanks of the delaying force.
  - Maintaining contact with the enemy. Continuous reconnaissance is conducted to establish and maintain contact with the enemy to prevent any attempt to bypass or envelop the flanks or penetrate between brigade units conducting the delay.
  - Avoiding decisive engagement. The delaying force normally displaces to the next delaying position before becoming decisively engaged. If units conducting the delay become decisively engaged, they may jeopardize the entire operation. It is not possible to delay successfully against an aggressive opponent unless the friendly force possesses a mobility advantage.

## Preparation

The brigade commander begins by having the battalion task force commanders backbrief their individual operations, explaining how their missions fit into the overall brigade plan. The

commander must ensure that his control measures are understood by each commander and that flank coordination can be executed without hesitation.

Next, the commander checks that the battalions are able to maintain contact with the enemy without becoming decisively engaged. He examines the direct-fire instructions issued to the battalions by their commanders, paying special attention to the disengagement criteria. In particular, he should be satisfied that the battalions are able to inflict maximum destruction, yet retain their mobility. Disengagement execution should be linked to obstacles and indirect fire; however, the commander may identify areas within the plan when and where a battalion task force may require assistance in disengaging from the enemy. Assistance could be provided by aviation, FA, or the commitment of the brigade reserve. The reserve can both significantly augment the lethality of the delaying battalion and assist in their disengagement.

The movement from primary to secondary positions (as well as other subsequent moves) is the area of greatest risk to the force. Friendly forces are exposed and vulnerable to direct fire should the enemy be able to press the attack. Moreover, the delaying force must have a mobility advantage over the aggressor to allow time to occupy their next position. As a result, the commander verifies through the rehearsal and TDIS analysis that the forces are able to maintain their mobility. Again, in locations where there seems to be little margin for error, the commander considers the use of Army aviation assets or perhaps the reserve to overwatch the move.

The logistics plan must be checked to ensure that only necessary vehicles and equipment have remained behind to support the brigade. The recovery and evacuation plan should be checked to ensure that damaged vehicles can be removed to the rear rapidly. This is not easy due to the limited number of recovery vehicles. It is important for tanks with fire control damage to drag other vehicles to the rear as necessary. UMCPs should be used only long enough to transfer damaged vehicles to other recovery vehicles. Avoid collection of damaged equipment that exceeds the UMCPs' ability to transport it at a moments notice.

Prestocks of ammunition should be placed adjacent to subsequent positions. The stocks should not be so large as to prevent the unit from continuing the mission should the stocks be destroyed. The stocks should be kept on transport vehicles to make availability more flexible and to permit their evacuation rather than force destruction in the face of the enemy. The same technique holds true for fuel, although fuel requirements are easier to forecast than ammunition consumption. In this case, the fuel trucks must be available for emergency requisition. (Topping off before execution of the operation should be required to avoid emergency refueling during combat.) Again, the commander must ensure that his CSS plan allows the brigade to maintain mobility while providing the means to inflict maximum destruction.

The reserve may be called upon to execute several tasks, such as blocking an enemy penetration, reinforcing a weakened sector, assisting in disengagement, and counterattacking. Generally, the brigade reserve avoids missions that extend far forward of the FLOT. Rather, it is used to maintain the cohesive nature of the delaying force. As a result, the brigade commander must clearly define how, where, and under what conditions he uses the reserve. The same TDIS analysis required in defensive planning is essential in proper reserve force planning; its integration into the maneuver plan using the DST must be a matter of course.

During the rehearsal, the commander exercises the reserve in each of the missions which he has determined to be appropriate to the overall delay mission. Specifically, he must verify that the force can assume its required position prior to the arrival of the enemy. This also confirms his DST. In each case, he must know how long it takes the reserve to move from its hide position to the counterattack/overwatch position and prepare to fight. This should be based upon information provided by the reserve commander, who actually drove the route at tactical speed in preparation for the battle.

## **Execution**

As the enemy moves toward the delaying force, the battalion scout platoons begin to report enemy maneuver. The task forces relay these reports to the brigade staff. The reports are reconciled against the commander's DST and event template to confirm the enemy's probable COA. In particular, the commander makes an initial assessment of the enemy's strength. This information influences his estimate of the brigade's ability to conduct the operation as planned.

Reports of enemy activity approaching TAIs should initiate responses from the brigade, such as calls for indirect fire. Throughout the operation, the brigade commander must rely on the battalions in contact for information concerning the enemy's strength, disposition, and probable future operations.

The brigade commander controls the delay using the control measures assigned with the delay plan. Specifically, he requires the timely reporting of PL crossing, passing of checkpoints, coordination point contact, and the occupation of BPs. As the enemy presses the attack, attempting to maneuver against the delaying battalions, the commander monitors the action closely, in an effort to anticipate possible decisive engagement. The commander may weight a subordinate maneuver elements fight with CS to maintain separation with the enemy.

The use of Army aviation should be fully integrated into the plan and well thought-out as it is a limited resource. A most appropriate use of combat aviation is to shape the battlefield well in front of the ground units allowing them more freedom of maneuver. Early commitment of aviation assets may be a mistake if they are not in a position to significantly augment the killing power of the battalion in contact. A more appropriate use would be to assist the battalion in contact in maintaining its freedom of maneuver.

Due to the decentralized execution of the delay, the brigade commander must rely on his battalion commanders to execute the mission and ask for help when they need it. This places a heavy burden on the battalion commanders, particularly when considering the strength of the enemy force they will be facing. Therefore, the brigade commander ensures his subordinate commanders get what they need to do the job.

During actual execution of the delay, the commander must carefully monitor progress of each battalion. Because he is separate from the action, he can look at the actions without becoming mesmerized by the close-in fight. His anticipation of future enemy actions, or battalion needs, stimulates CS and CSS operations in a specific sector.

He must maintain the cohesiveness of the overall operation, ensuring that flank coordination is maintained at all times. Most important, he must carefully assess the situation to determine the

most effective use of the brigade reserve. Once he reaches his DP, the commitment of the reserve must then receive all the support necessary to successfully accomplish its mission. It is imperative that the counterattack force strike quickly and violently. It must be withdrawn just as quickly so that it can be used again at another opportune moment.

## **WITHDRAWAL**

A withdrawal is disengagement from the enemy, either unassisted or assisted by another force. It is conducted so that the battle may be handed over to another unit positioned to the rear of the withdrawing force, allowing the withdrawing force to prepare for future operations. Withdrawals may or may not occur under enemy pressure.

### **Assisted Withdrawal**

The assisting force occupies BPs to the rear of the withdrawing brigade and prepares its defense. It can also assist the withdrawing brigade with withdrawal route reconnaissance, maintenance and supply support, and security. Detailed coordination is conducted with the withdrawing brigade, which then delays to the BHL, conducts a passage of lines, and moves to its final destination.

### **Unassisted Withdrawal**

The brigade can establish a security force for the whole brigade. Usually this is at least a battalion task force. Front-line battalions withdraw behind the security force and continue their movement to the rear assembly area. The alternative is to require the battalions to provide their own security in their sectors.

## **Planning**

During withdrawal, all or a portion of the brigade disengages from the enemy and moves away in an organized manner. Withdrawals are either assisted or unassisted. An assisted withdrawal uses a security force provided by the next higher headquarters to assist the brigade in breaking contact with the enemy and to provide overwatching fires. In an unassisted withdrawal, the brigades provide their own security covering force.

Withdrawal operations are conducted in several phases:

- Initiation of security force operations.
- Selection, reconnaissance, and necessary preparation of multiple routes, traffic control points (TCP), and on-order assembly areas.
- Preparation of obstacles to hinder the pursuit by the enemy.
- Evacuation of wounded, recoverable equipment and supplies, and movement of nonessential CSS units to the rear.
- Position of security forces.
- Preparation of deception operations.
- Deployment of rearward FA units not needed to support the withdrawing forces.

- Disengagement and movement of the withdrawing main body to new positions.
- Disengagement and withdrawal of security forces or security elements when directed to do so by the brigade commander.

## Preparation

Critical to the success of a withdrawal is the coordination between the brigade and the covering force. The collocation of headquarters helps in solving some of the problems during preparation and execution.

The withdrawing brigade must coordinate a rearward passage of lines as discussed previously. The BHL and recognition signals must be agreed upon. FSCM must be established to safeguard the rearward movement of the brigade. If time allows, members of the covering force should meet on the ground with the leaders of the withdrawing force to agree on contact points, PPs, passage lanes, obstacles, and FS plans.

The commander must rehearse the conduct of the withdrawal, paying particular attention to the possibility of reverting to the delay. Movement plans, followed by rearward passage of lines, should be stressed. Control must be maintained throughout the operation. Each player must understand his role in the operation.

The commander checks the coordination between the brigade and the covering force. The covering force should be kept informed of the activities of the brigade throughout the withdrawal. Collocating headquarters and providing LOs between headquarters help in reducing confusion. The commander and staff rehearse the conduct of the withdrawal, to include reverting to the delay in the event of an enemy attack. The DST and other tools must be at their disposal.

## Execution

As the time of execution arrives, the brigade begins the deception plan. Artillery fires could trick the enemy into thinking the brigade is going on to the offensive and prevent him from detecting the withdrawal. The suppression should cover the withdrawing force's movement from the FEBA.

Security elements carefully monitor their assigned sectors, reporting any signs of enemy activity. As the force begins to move to the rear, the security force displaces to the next designated PL.

Accurate reporting and relaying of information through the battalion task force headquarters are essential to the proper assessment of the situation.

Security elements call for indirect fire to keep the enemy off balance and prevent him from closing with the main body. Once the screen reaches its last position, adjacent to the covering force, battle handover is effected and the enemy engaged as in a deliberate defense. If this is conducted properly, the enemy, in its haste to reestablish contact with the withdrawing force, plunges into the deliberate defense, sustaining heavy casualties.



As the battalions report they are clear of each brigade PL, the brigade informs the covering force that the PL represents the brigade CFL. This allows increased FS in the brigade sector and prevents the enemy from reestablishing contact.

From their final positions, the battalions begin passage of lines IAW the plan coordinated with the covering force. If there is no covering force, the detachment left in contact (DLIC) covers the movement of the brigade to the rear. After the battalions have passed to the rear of the covering force, they quickly form up in assembly areas to prepare for the road movement to their final destination. The covering force assumes responsibility for the sector once the brigade clears the BHL.

Throughout the operation, the commander's main concern is avoiding decisive engagement with the enemy. To do this, he must make his assessment based on reports of units in contact with the enemy. The commander should remember that an appropriate COA for one battalion may not suit another. A battalion may respond to enemy success by reverting to the delay while adjacent battalions continue to withdraw.

## **RETIREMENT**

A retirement is a retrograde operation in which a force not in contact moves away from the enemy.

### **Planning**

A retirement is made following a withdrawal or when there is no actual contact with the enemy. When a withdrawal precedes the retirement, the retirement begins after the main forces have broken contact with the enemy and march columns have been formed. A retirement is conducted to:

- Occupy more favorable terrain.
- Conform to the disposition of another force.
- Permit the employment of the force in another sector.
- Increase the distance between the defender and the enemy.

A tank-heavy rear guard supported by FA, ADA, and TACAIR support is normally required for a retirement. The rear guard uses delaying action techniques to slow the advance of the enemy and prevent interference with the movement of the main body.

The procedures for the conduct of a nontactical retirement are identical to those of a tactical road march. Nontactical movements are conducted only when contact with the enemy is unlikely. Enemy capability to employ airborne or air assault forces must be taken into consideration and route reconnaissance performed as required.

The brigade S4 plans rearming, refueling, and repair of the brigades equipment upon closure in its new assembly area.

The commander must ensure that the rear guard commander has everything needed to command and control the rear guard. Control measures should be clearly understood. The

brigade commander positions himself where he can best control and monitor the operation. Actions upon contact should be rehearsed with each of the battalion commanders to ensure that they understand the proper procedures.

## **Preparation**

The commander reviews the maneuver plan with the battalion commanders. He ensures each commander understands his mission and responsibilities. If the brigade is conducting a tactical movement, coordination between the rear guard and the main body will be addressed. The main body must not outrun the rear guard. Actions in rearward passage of lines with a stationary force must be rehearsed so each element understands which position to occupy before executing its rearward passage. The BHL must be understood by the rear guard as well as on-order CFLs. Order of march from each unit's final defensive positions to passage lanes and ultimately routes to the assembly area must be clearly understood.

Each battalion task force and brigade element must know when and where it is to travel on the rearward route to the assembly area. Emergency stop areas, maintenance halts, and rest halts should be identified as well as UMCPs and emergency fuel support.

Occupation of and actions within the assembly area should be reviewed so that each element understands the geographical boundaries of his area and his responsibilities upon occupation. A discussion of assembly area operations is in Appendix D.

## **Execution**

The rear guard delays the enemy as required to protect the main body, fighting from subsequent lines of defense. The rear guard must not become decisively engaged.

The main body moves in column. As the brigade approaches its final positions before executing a rearward passage of lines, the units may have to temporarily adopt a hasty defensive position until each element is able to conduct its rearward passage of lines. This temporary halt may be expedited by increasing the number of passage lines.

Once the passage is complete, the brigade forms into march elements and begins the road movement to its designated assembly area. It may be advisable to occupy temporary assembly area positions to reorganize before beginning the road movement. Reconnaissance elements and MPs may assist in traffic control during this phase of the operation.

The brigade provides command and control for the rear guard as well as the retiring units. The commander travels in the area of the brigade where he can best influence the action. He temporarily collocates his CP with the stationary force CP to supervise the rearward passage of the brigade. Then he moves to a forward march unit to monitor movement all the way back to the assembly area.

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# **SECTION V. BREAKOUT FROM ENCIRCLEMENT**

## **GENERAL**

A brigade is encircled when all ground routes of evacuation and reinforcement have been cut by enemy action. A force may become encircled when it is ordered to remain in a strong position on key terrain to deny the enemy passage through a vital choke point following an enemy breakthrough or left to hold the shoulder of a penetration. A unit might also be left in position behind the enemy by design or be given a mission with a high risk of being encircled. When this happens, the encircled commander must have a clear understanding of the higher commander's plan so the unit can continue to contribute to the mission.

## **PLANNING**

### **Command Actions**

The senior maneuver commander within the encirclement assumes control of all forces. He informs his superiors of the situation; simultaneously, he begins to accomplish the following tasks regardless of his subsequent mission:

- Reorganize all CS and CSS assets and bring under centralized control.
- Reestablish a chain of command. Fragmented units are reorganized, and a clear chain of command is established. Personnel not essential to CS and CSS are organized for combat operations or provided to battalion as replacements.
- Establish a viable defense. The command quickly establishes all-around defense; assigns sectors, BPs or strongpoints; and institutes an aggressive patrolling plan.
- Establish a reserve. A reserve must be constituted and positioned to take advantage of interior lines. Consider establishing more than one reserve.
- Organize FS. All indirect-fire assets in the encirclement are reorganized and brought under centralized control of the FSCOORD. Artillery and mortars are distributed throughout the pocket to limit their vulnerability to counterfire. The available FS from outside the encirclement is coordinated by the FSCOORD.
- Reorganize logistics. An early assessment is made of the logistics posture of the encircled command. Temporarily, all CSS comes under the centralized control of the senior logistician or designated individual. He rations key supplies, authorizes cannibalization, identifies equipment to be destroyed, and develops a casualty evacuation and stay-behind plan.
- Maintain morale. Commanders and leaders at all levels maintain the confidence of soldiers by resolute action and a positive attitude. They keep soldiers informed to suppress rumors.

### **Actions Upon Encirclement**

The options available to the encircled brigade are:

- Conduct a breakout attack in the direction of a friendly force.
- Defend encircled.
- Attack deeper toward enemy forces and installations.
- Exfiltrate from the encircled position toward friendly forces.

The decision on which option the brigade should take is based on the intent or orders of the division commander. Regardless of the mission, contingency planning for a breakout should begin immediately.

Once the brigade commander realizes that the force has become encircled, he turns to the S2 for a quick assessment of the enemy situation. This information is furnished by the S2s of all units within the encircled area and contained in reports from the encircled forces in contact. In particular, the S2 should attempt to identify the strengths, weaknesses, and vulnerability points of the encircling the brigade. These two pieces of information drive much of the commanders decision making.

Communications with higher headquarters and lateral communications with adjacent units are rapidly reestablished. It is important to receive instruction and to remain informed about the battle outside the encirclement. Encircled units can be important sources of information on the enemy's rear area and can perform important roles in defensive counterstrokes. Communications are essential when relief and linkup are imminent.

## **PREPARATION**

Although there are several options available to the commander once encircled, this section only addresses the breakout in the direction of the friendly force. If the breakout is chosen, it is important that it take place as soon after the encirclement as possible. The enemy force may not realize that it has encircled the brigade. The longer the commander waits to conduct the attack, the more organized the enemy forces are likely to become. The difficulty lies in the fact that it takes time for the commander to organize his force properly to conduct the breakout; therefore, the commander must weigh the level of preparation against the time available.

The attack to break out of an encirclement differs from other attacks in that defensive operations are occurring simultaneously in other areas of the perimeter. The following tasks should be accomplished in both the planning and preparation for the breakout:

- Deceive the enemy as to time and place of the breakout. If it is not possible to break out immediately, the commander attempts to deceive the enemy by concealing his preparations and redispositions. He must also make it appear that the force makes a resolute stand and awaits relief. Use of dummy radio traffic for the enemy to monitor or landlines that might be tapped are good means of conveying false information to the enemy. The direction for the breakout should not be the obvious route toward friendly lines unless there is no other alternative.
- Exploit gaps or weaknesses in the encircling force. Early in the encirclement there are gaps or weaknesses in the encircling force. Patrolling or probing action reveals these weaknesses. The attack should capitalize on them. Although the resulting attack may be along a less direct route or may be over less favorable terrain, such an attack is the best COA because it avoids enemy strength and increases the chance for surprise.
- Exploit darkness and limited visibility. The cover of darkness, fog, or severe weather conditions favors the breakout because the weapons of the encircling force are less effective in these conditions. It is difficult for the enemy to follow the movements of the breakout force during conditions of limited visibility. However, waiting for darkness or

limited visibility may result in the consolidation of the enemy containment.

- Organize the forces for the breakout. The forces are reorganized so that available armored forces lead the attack if the terrain permits. The remainder of the forces fight a delaying action or defend the perimeter during the initial stage of the breakout. After the penetration, the main body moves out of the encircled area preceded by the attacking force and covered by a rear guard. CSS elements are integrated into the formation for the breakout. If the commander has sufficient forces, he may organize a diversionary attack just prior to the real breakout in an attempt to draw off enemy forces.
- Coordinate with supporting attacks. The breakout attack is assisted when a supporting attack by a nearby friendly force or by the reserve diverts enemy attention and assets from the breakout effort. The breakout attempt should be timed to occur just after the enemy reacts to the supporting attack.

The brigade commander directs the operation using FRAGOs to save as much time as possible. The brigade S3 assists the commander by coordinating with those units the commander does not have time to check. This should correspond to their positions during the execution of the operation as well.

## EXECUTION

### Forces

The forces for a breakout operation are divided into five distinct tactical groups.

#### ***Rupture Force***

The rupture force attacks, creates a gap in the enemy's weak point (if it has been identified), and holds the shoulders for the remaining forces to pass through. The rupture force consists of a task force or reinforced task force. The rupture force must feasibly be able to penetrate the enemy line. A favorable combat power ratio must be achieved at the point of attack by means of surprise, troop strength, mobility, and firepower. Initially, this force is the brigade main effort. The task force commander probably has additional assets attached to his unit if he is the rupture force commander. These assets might include air defense assets or additional engineer personnel from the engineer company. The task force commander should integrate these assets properly for maximum combat power to achieve the rupture. AT systems could initially overwatch the rupture force and, after the gap has been opened, could secure the flanks from the shoulders.

#### ***Reserve Force***

The reserve force follows the rupture attack to maintain attack momentum and to secure objectives past the rupture. After the rupture force secures the gap, the reserve force normally becomes the brigade's lead element. When a task force is given the mission of the reserve force, the commander must coordinate closely with the rupture force commander on the

- Location of the gap.
- Enemy situation at the rupture point.



- Enemy situation (if known) along the direction of attack past the rupture point.

Initially, the reserve force passes through the gap created by the rupture force. It is essential that the reserve force continues a rapid movement from the encircled area toward the final objective (probably a linkup point). If the reserve force is making secondary attacks, it is important that it does not become bogged down. Artillery preparation of these objectives may assist the reserve force in maintaining momentum out of the encircled area.

### ***Main Body***

The main body, which contains the CP elements, casualties, and CS and CSS elements, moves as a single group. It usually follows the reserve force through the gap created by the rupture force. The commander should be given command and control of this element to ensure orderly movement.

### ***Diversionsary Force***

Enemy attention must be diverted from the location of the rupture by a show of force elsewhere. The diversionsary attack should be as mobile as available vehicles and trafficability allow. Mobile weapon systems and tanks are ideally suited to the diversionsary force. The diversionsary attack should be directed at a point where the enemy might expect a breakout. Success of the diversionsary force is imperative for a successful breakout operation. If the force fails to deceive the enemy as to the brigade's intention, the full combat power of the enemy can be directed at the rupture point. This could lead to a failure of the entire breakout operation. To achieve deception, the task force should:

- Use smoke-producing assets to deceive the enemy as to the size of the diversionsary force.
- Increase radio traffic for size deception and as an indicator of an important operation.
- Use any available FS to indicate a false rupture point.
- Use mobility and firepower of the diversionsary force to maximum effect to deceive the enemy as to the size and strength of the diversionsary force.

The diversionsary force may achieve a rupture of enemy lines. If a rupture occurs, the diversionsary force commander must know the intent of the brigade commander. He may exploit this success, or he may disengage to follow the reserve force through the planned rupture point along the direction of attack.

### ***Rear Guard***

The rear guard consists of the personnel and equipment left on the perimeter to provide protection for the rupture and diversionsary attacks (if a diversionsary attack force exists). In addition to providing security, they deceive the enemy as to the encircled force's intentions. The rear guard must be of sufficient strength to maintain the integrity of the defense. Once the breakout commences, the rear guard and diversionsary force disengage or delay toward the rupture. If a task force is assigned the mission of rear guard, the commander must ensure he provides a viable defense on the entire perimeter. As other units (rupture force, reserve force,

diversionary force) pull off the perimeter, the rear guard commander must spread his forces over an extended area. This requires flexibility and mobility by the rear guard. The perimeter must withstand enemy pressure. If it does not, the enemy force simply follows the breakout forces through the gap and destroys them along the direction of attack.

Note. As the rear guard delays, it must maintain contact with the main body to prevent enemy forces from separating the two.

## **Combat Service Support**

CSS assets move with the main body. Those items that cannot be transported are destroyed. Some prestocks may be left for the rear guard; however, they must be accompanied by some kind of detonation device. Control of CSS assets is difficult due to the lack of radios on the supply vehicles. Therefore, each driver must understand the mission and direction of attack. Visual signals should be agreed upon in advance, especially if special signals are required beyond the SOP. Air guards and flank protection are especially important to the soft-skinned vehicles. As a result, some combat forces should accompany the main body to provide that protection.

## **Command and Control**

The commander should position himself where he can watch the rupture force conduct its attack. He determines the tempo of the operation, while the S3 observes the actions of the rear guard. The two must remain in communication so that each understands the overall condition of the battlefield and can synchronize their activities. Usually, the rear guard is given PLs from which to delay, corresponding to the forward movement of the rupture and reserve forces; therefore, close coordination and communication are essential. Figure 6-8 contains a graphic depiction of a breakout.

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# **SECTION VI. REAR OPERATIONS**

## **GENERAL**

Army operations are fought simultaneously deep, close, and in the rear. The enemy attacks the entire depth and width of the battlefield to obtain victory. In the operational context, the primary purpose for conducting rear operations is to retain overall freedom of action for fighting close and deep operations. Rear operations represent a critical fight for the brigade commander. Army operations cannot be won solely by fighting in the rear but could well be lost there.

Rear operations consist of those actions, including area damage control, taken by all units singly or in a combined effort, to secure the force, neutralize or defeat enemy operations in the rear, and ensure freedom of action in deep and close operations. It is a system designed to ensure continuous support. Rear operations are not just the protection of logistics facilities. Rear operations include movement of friendly units throughout the rear area. Tactical combat forces may be required to defeat the rear threat. Rear operations may divert forces from the brigade close operation.

The brigade commander is responsible for plans and operations throughout the depth of his AO. He assigns tasks to subordinate and supporting commanders to execute those responsibilities. The brigade S3 includes detailed planning for the entire rear area as part of operational planning for offensive and defensive missions.

The FSB commander is responsible for the BSA. For security purposes, this includes the OPCON of all elements operating within the BSA. Consistent with the commanders estimate and when allocated appropriate forces, the FSB commander may be assigned additional rear area functions.

Brigade planning considerations for rear operations include:

- Securing rear areas and facilities.
- Preventing or minimizing enemy interference with command, control, and communications.
- Providing unimpeded movement of friendly units throughout the rear area.
- Finding, fixing, and destroying enemy incursions in the rear area.
- Providing area damage control after an attack.

## **BASE DEFENSE OPERATIONS**

When developing his overall plan, the brigade commander ensures that the positioning and organization of the BSA supports the rear operation objectives. The FSB commander is responsible to the brigade commander for the security, positioning, and operation of the BSA.

Well-planned and tenacious base defense is the cornerstone of successful rear operations. Base defense operations include all actions that units occupying a base take to protect themselves from the enemy. They consist of a combination of passive and active measures, including MP patrolling, reconnaissance and response force operations, hardening and dispersal actions, cover and concealment, deception, and immediate reaction to enemy threat or attack. Base defense operations are enhanced by the extensive use of obstacles, sensors, surveillance devices, and OPs. Supporting units must be prepared to conduct small-unit security operations and defend themselves against all levels of threat.

Units operating within the BSA are OPCON to the FSB commander for security and positioning within the BSA. All elements operating within the BSA establish radio, wire, or messenger communications with the FSB TOC. The FSB CP and brigade rear CP collocate to facilitate coordination and rear area security.

Areas in the rear that are devoid of tactical units are isolated because troop disposition should be reconnoitered by MP patrols. Coordination with other divisional and nondivisional assets deployed within the brigade AO must occur to ensure overall linkage of rear OPLANs. The S3 coordinates patrolling and reporting with the MP unit commander as part of the MP area security mission.

## **DEFENSE OF THE BRIGADE SUPPORT AREA (BASE CLUSTER)**

Defense of the bases within the BSA and defense of the base cluster known as the BSA is a difficult ongoing task. The requirements to have the BSA located so two or three roads pass through the cluster and so it is near an MSR does not make for easy passive security. Too many roads into a BSA decreases the commander's ability to secure the area. When locating the BSA, the commander should take advantage of every factor that increases his passive security.

Each unit located in the BSA is normally a few hundred meters from the next unit. All the units are in the BSA for the purpose of supporting the brigade. For defensive purposes, each unit sets up as individual bases. Each base must have a plan for the defense of its element, and each must integrate its defense plan with the FSB commander (base cluster commander). Each base should plan on assisting with access control duty on the main avenues entering and exiting the BSA. Those bases/units located along the BSA perimeter should plan on securing a sector of it.

Most units in the BSA have a heavy support mission and therefore have few personnel to give toward security. It is imperative that each unit have a thorough defense plan that is well rehearsed and uses everyone as an ongoing check of personnel in the area. Considerations for defense of a base include:

- Locate and prepare a fighting position for each individual or section in the unit
- Know who is in your unit.
- Challenge anyone who is unfamiliar or out of place.
- Have a plan of action if the enemy has infiltrated your assembly area or base.
- Have a specific signal/alarm to order people to fighting positions.
- Have a different alarm/signal to warn that enemy forces are in the internal area. This type of alarm can cause everyone to drop to the ground and fire on anyone left standing.
- Rehearse your plan for defense many times.
- Ensure your plan allows for some personnel, weapons, and equipment to be out on mission.
- Ensure you have coordinated with the bases near you.
- Use caution with fighting positions oriented near or toward other bases when firing weapons.
- Ensure it is understood and confirmed from which direction the BSA's reactionary force will come.
- Plan and use mobile (foot patrol) and static security. Static security is hard to detect and, therefore, effective. Mobile patrolling is an immediate deterrent for many small elements.

## **BRIGADE SUPPORT AREA/BASE CLUSTER DEFENSE CONSIDERATIONS**

Developing and executing a defense plan for the BSA must include all those factors considered for a base, plus the following:

- In addition to the MP platoon, have a reactionary team identified and rehearsed to combat an enemy attack.

- Check each base's defensive plans on the ground.
  - Use any available engineer assets to dig in equipment and prepare fighting positions.
  - Take advantage of the knowledge of the MP platoon leader/sergeant in base/base cluster defense.
  - Take advantage of all assets in the BSA, including temporary assets such as:
    - Inoperable weapon systems on inoperable tracks.
    - Combat soldiers awaiting repair of vehicles.
    - Lightly wounded soldiers awaiting return to units (at the medical company).
    - Reserve combat forces.
    - Scout platoons that are not performing missions for their battalion.
- 

## **SECTION VII. RIVER CROSSING**

### **GENERAL**

A hasty water crossing is a decentralized operation to cross an inland body of water using organic, existing, or expedient crossing means. This operation is conducted in stride as a continuation of an operation to maintain momentum. For additional information see FM 90-13. Hasty water crossings are characterized by:

- Speed, surprise, and minimum loss of momentum.
- Decentralized operation with organic, existing, or expedient resources.
- Weak or no enemy defenses on both banks.
- Minimum concentration of forces.
- Quick continuation of the operation.

The planning considerations and organization of a river crossing are applicable to many operations.

Brigades conduct river crossings as part of the division or corps scheme of maneuver. Once given the mission to conduct a river crossing, the brigade commander starts planning for synchronization of all of his assets. He must ensure that he does not give up the initiative to the enemy by allowing a water obstacle to have a disproportionate impact on his scheme of maneuver. Whenever possible, brigades cross all obstacles in stride, using local material and organic assets.

In division operations, brigades are the assault forces. If the assault is conducted with two brigades forward, two brigade zones are designated within the crossing front. These zones coincide with crossing areas, with one designated for each assault bridge. The brigade commander normally provides his XO and a small staff to act as the crossing area commander to ensure all organic brigade assets are prepared for the crossing. Synchronization of organic assets and supporting combat multiplying assets are critical to the success of the crossing.

### **SECURING THE BRIDGEHEAD**



The planning headquarters first reviews the objective area. Unless a bridgehead has been specified by higher headquarters, the crossing force decides what objectives must be controlled to ensure security and to facilitate future operations to defeat the enemy. The crossing force selects the bridgehead.

Securing the bridgehead requires control of an area on the exit bank large enough to accommodate the assault and essential support elements of the crossing force. In addition to accommodating the crossing force and facilitating future operations, the size of the bridgehead may be determined by defensive characteristics of the terrain. Not only must the enemy be defeated at the bridgehead, but it must also be prevented from effectively counterattacking the crossing force and/or destroying crossing sites once the bridgehead is secured. Thus, defensible terrain and space within the bridgehead are required in a defense against an enemy counterattacking to regain control of the river bank.

After selection by the crossing force, the bridgehead is graphically depicted by a bridgehead line that defines the outer limit of the area. Normally this line is located along identifiable terrain features, including crossing force objectives, and is connected to the river bank on the left and right flank of the crossing front. This arc orients the crossing force to the flanks as well as to the front. Usually, terrain or communications center objectives assigned by higher headquarters are within the bridgehead. If not, the attack proceeds from the bridgehead to secure these objectives. In either case, once the bridgehead is secured, the river-crossing operation is completed. Figure 6-9 shows a typical organization for securing a bridgehead.

## Objectives

To secure the bridgehead, objectives within this area are assigned to assault forces. Considerations for selection of objectives and the relative size of the forces needed to secure them do not vary from usual offensive operations. Ideally, objectives are attainable by the assault forces in one continuous attack from the river. The crossing force commander specifies only those objectives that must be controlled to secure the bridgehead. When terrain or enemy conditions warrant, intermediate objectives are assigned; however, judgment is required to avoid unnecessary slowing of assault forces. Plans must provide for a rate of crossing and buildup of combat, CS, and CSS forces on the exit bank that exceeds the rate at which the enemy can concentrate against the crossing force.

Whenever possible, assault forces advance directly from the exit bank to bridgehead objectives. When intermediate objectives have been assigned, they are secured with minimum delay en route to final or bridgehead objectives. At brigade level, assignment of intermediate objectives is appropriate. For example, it is difficult for the lead battalion or company of an assault force to attack continuously without securing intermediate objectives, except when advancing against weak enemy forces. Intermediate objectives serve the following purposes:

- Orient the direction of attack toward final objectives.
- Provide centralized control of the advance.
- Facilitate changes in lead companies and battalions of the assault.
- Gain an initial foothold on the exit bank when stubborn enemy resistance is expected.

Selection of intermediate objectives is dependent on terrain and enemy defensive dispositions. In areas of relatively open or unrestrictive terrain or against a weak enemy, few intermediate objectives are needed. Where terrain is rugged or when enemy defensive positions have been prepared in depth, more objectives are appropriate. Possible objectives include hills, enemy positions, or control measures such as PLs.

## **Forces**

The division's crossing force commander and his staff plan the river-crossing operation with the following tactical concepts in mind:

- The assault forces lead, making the initial assault of the river and continuing the advance from the exit bank to the final objectives.
- Support forces develop crossing sites, emplace crossing means, control units moving into and away from the crossing sites, and assist the assault force to the objectives.
- Follow-and-support forces provide overwatching DS and indirect support, crossing site security, and follow-and-support assistance to the assault force.
- CSS elements sustain the assault and subsequent advance to the bridgehead objectives.

## ***Assault Forces***

Assault forces close on the water obstacle and cross rapidly by any means available. Infantry elements establish local security on the exit bank to permit development of the crossing sites. Initial crossings may be limited to pneumatic assault boats and amphibious vehicles while tanks provide support from overwatching positions. Army aviation assets may lift the assault force over the obstacle with the assault across the water. TACAIR and ADA protect the crossing units and sites. Artillery fires and air strikes are effective in softening enemy resistance and may precede the assault with preparatory fires and/or a rolling barrage. Divisional engineers advance with lead elements to breach obstacles and open or improve trails to keep units moving. Tanks, using bridges or rafts installed by support forces, cross later in the assault.

## ***Support Forces***

Support forces accompany the assault force and provide the necessary support to the crossing area commander. Engineers improve crossing sites and ingress and egress routes at crossing sites as rapidly as time and security permit. Rafts and bridges are installed to transport heavy loads. MPs and other designated crossing unit personnel control the flow of traffic to and away from crossing locations.

## ***Follow-and-Support Forces***

Follow-and-support forces move close behind assault forces to add their combat power where needed. Using rafts and bridges, they cross quickly behind assault elements to overwatch, conduct follow and support tasks, or assume the mission of lead assault units. Artillery provides counterfires to protect the site, smoke to conceal the crossing, and fires in support of the lead assault elements. ADA protects the sites and provides an umbrella for Army aviation elements

in the crossing area. Engineers develop overwatching and firing positions, then advance with the follow-on forces to reduce obstacles, improve bypasses, and install flank obstacles. Necessary maneuver, FS, and air defense elements secure crossing sites from guerrillas or local enemy counterattacks.

## PLANNING

Intelligence of the enemy and terrain determine tactical and materiel requirements for the crossing and the command echelon capable of accomplishment. The division, in its mission statement to the brigade, may specify the requirement to conduct a river crossing or, in assigning a mission, imply the task of crossing a river. Accordingly, the S2 attempts to collect as much information as possible about the enemy and the water obstacle. Together with the brigade engineer, the S2 examines

- River width, depth, and velocity.
- Locations of possible entry and exit routes.
- Obstacles.
- Cover and concealment.
- Soil and weather conditions.
- Enemy composition and disposition.

The planning sequence is considered in reverse order of occurrence; the last task of securing the bridgehead is examined first. However, the river is examined before plans for securing a bridgehead and advancing from the exit bank are completed. General planning requirements for river crossings vary little from routine offensive planning:

- Objectives are selected and assigned.
- Areas or zones for forces are determined.
- Control measures are designated, forces are allocated, and missions are assigned.

Assault crossing plans may be completed at crossing force headquarters level or delegated to the assault force and crossing area commanders once attack zones and crossing areas have been specified. To maintain the speed of the advance without loss of momentum, plans for hasty crossings are often accomplished at the brigade or assault force level. On the other hand, plans for deliberate crossings require more time, and the buildup of combat power is normally a division or corps responsibility. Complete plans prepared at division and corps require detailed coordination with brigades to ensure the sequencing of units at the crossing sites complements the brigade's assault concept.

When the crossing force headquarters delegates planning for the assault crossing to the brigade, it provides guidance and support to the assault force and crossing commanders. Guidance may include:

- Time of attack and/or assault crossing.
- Specific crossing sites.
- Times that bridges are scheduled for use by forces other than the assaulting brigade.
- Available crossing support forces (engineer and MP).

## Types of Attacks

Offensive river crossings are not an objective in themselves, but a part of the scheme of maneuver and overall offensive action to defeat the enemy. The commander has two basic attack options to secure the near and far side of the water obstacles. Based on the assessment of the enemy, terrain, and water obstacle, he may conduct either a hasty or deliberate attack (see [Chapter 4](#)).

## Reverse Planning Process

The major concerns of the crossing and assault force commanders during any attack that includes a water obstacle are vulnerabilities of forces on the exit bank and a rapid advance to secure objectives. The latter is the overriding consideration; hence planning commences at the objectives and projects back toward the river. An accurate assessment of the enemy's expected counterattacks and indirect fire barrages is integrated into planning. This is particularly significant during early stages of the advance because the assault force is temporarily divided by the river, thus diminishing its combat power potential. To counter probable enemy reaction, counterfires and aerial attacks augment other planned fires to ensure the necessary rapid advance to overwhelm the enemy.

Once the S2 has constructed an enemy situation template and the engineer has identified possible crossing sites, the brigade FSCOORD begins to develop the FS plan. This plan must accomplish several missions simultaneously. In the initial stages of the operation, the artillery should suppress enemy positions that have observation and fields of fire over the crossing sites of the assault force. Smoke missions should also be fired to further add to the obscuration. Radar critical friendly zones should be developed on the crossing sites to protect the crossing force if attacked by enemy artillery. Using the S2's enemy template, radar call for fire zones should be recommended on suspected enemy artillery positions.

After the assault force gains a foothold, the indirect fires should assist the force in maintaining its position while the support force begins construction of rafts and bridges. It is essential that forward observers (FO) be included with the assault force, so that they can rapidly adjust fire on enemy locations. The FS plan at this point should include FPFs, in case the enemy launches a counterattack against the bridgehead.

As the force moves to the RP/line to begin the attack, the FS plan supports the maneuver as it would for any offensive operation. The artillery must provide close and continuous support to the leading assault units. Fires should be planned on enemy strongpoints and likely counterattack positions. Suppressive fires degrade enemy air defenses, and ADAM/RAAMS (if the situation permits) could provide some security along the flanks and slow enemy movement.

One corps ribbon bridge company is capable of supporting a task force crossing. It also can support a brigade unopposed crossing, if it has sufficient bridging to bridge the river. A brigade or divisional crossing requires additional corps bridge companies. Normally, each task force requires about one bridge company's assets to support crossing sites. A crossing brigade requires a minimum of two companies. This depends on river width and the number of crossing sites required to support the scheme of maneuver. If the brigade is conducting an opposed river

crossing, the corps combat engineer battalion commander becomes the crossing area engineer. The engineers supporting the assault force are separate and distinct from the engineers conducting the crossing. They are task organized with the bridgehead and breakout forces oriented on the far shore combat missions, not the tasks associated with the river crossing.

The brigade engineer is a critical player in this operation. The brigade commander relies on his expertise in planning the river crossing. The brigade is augmented with corps bridging assets to conduct the operation. Special planning considerations include:

- Determine crossing sites.
- Determine method and means of crossing.
- Types of vehicles involved in crossing.

The crossing operation involves virtually every type of engineer activity: combined arms breaching, bridge and raft construction and control, mobility operations along the routes to the crossing sites, countermobility operations to prevent the enemy from reaching the bridgehead, and survivability at the bridgehead. In planning for the operation, the brigade engineer may consult the following information sources:

- Maps.
- Local inhabitants and prisoners.
- Aerial photographs and visual reconnaissance.
- Hydrographic studies.
- Strategic studies.
- Ground reconnaissance.
- Division's terrain detachment (G2).

The brigade ADO has several concerns in planning protection for the brigade. During initial stages of the operation, the brigade is concentrated near the river line. This includes maneuver elements as well as stockpiles of equipment needed for the actual crossing. Such highly congested areas are lucrative air targets and must be protected if the river crossing is to succeed.

Once the brigade begins the actual assault and construction of the bridges and rafts, enemy aircraft can be expected to zero in on these positions. Again, ADA assets must be positioned to protect these resources. Some assets may be placed directly on the bridge.

Finally, the force must be protected as it moves to the RP/line and into the attack. In this regard, some assets are dedicated to protect the force as in any offensive operation, while others remain behind to protect the bridgehead and the crossing sites.

As mentioned earlier in this section, CSS assets are essential to sustaining the attack. The brigade S4 must ensure that adequate supplies are pushed forward to the crossing sites, particularly any expedient materiel that may assist the operation. Suppression of enemy positions on the far side of the river expends large amounts of ammunition. Likewise, the assault force must hold the bridgehead until reinforcements can deploy; it must be given



additional ammunition to sustain operations. With this in mind, the S4 must plan with the engineer, S2, and S3 to ensure supply vehicles are integrated into the crossing order as early as possible.

Assault force commanders, usually brigade commanders, command the assault forces from the brigade TAC CP. When the brigade enters the crossing area, control, not command, is then passed to the crossing area commander. Control then reverts to the assault force commander as the assault force leaves the crossing area.

The designated crossing area commanders may be division or brigade staff officers. Since the assault force is normally a brigade, the brigade XO is usually designated as the crossing area commander and operates from the brigade TOC. This allows the brigade (assault force) commander to focus his attention on the battle and serves to bind the assault crossing and tactical concept. Subordinate battalion XOs or LOs may collocate with the crossing area commander to provide detailed movement instruction for their units per the crossing area commander while leaving the brigade command net free to fight the battle on the far shore. Each crossing commander controls:

- Crossing units of the assault force while in the crossing area.
- Tactical elements that secure the crossing sites.
- Support force engineers who develop and maintain crossing sites and traffic.
- Control elements (primarily MPs) that direct and control crossing units in the crossing area.

The crossing force commander facilitates planning by dividing the operation into distinct and manageable segments:

- Advance to the river.
- Assault crossing of the river.
- Advance from the exit bank.
- Securing the bridgehead.

Figure FM6-10 depicts the organization of river crossing command and control.

## **PREPARATION**

At this point, the commander rehearses each phase of the river-crossing operation.

### **Advance to the River**

The brigade should be task organized for the operation before the advance to the river begins. Regardless of the events prior to the actual advance, the brigade's lead battalions either move to secure objectives that overwatch the proposed crossing sites, or secure the crossing by seizing enemy bridges or by conducting their own amphibious assault. Once these objectives have been secured, the control switches from the assault force commander to the crossing force commander.

### **Assault Crossing of the River**

Once in position, the assault force neutralizes the enemy forces that can influence the crossing. The actual crossing may be executed using any number of methods: fording, assault/swimming, rafting, or bridging. Lead elements should be prepared to cross under fire. A line or wave formation crosses more forces than a column in equal time periods. However, it exposes more forces, increasing vulnerability and the chance of detection of the crossing effort. A column, using one or two entry points, concentrates forces but requires more time to build up combat power, providing the enemy more time to detect and concentrate fire on the crossing site. To reduce enemy obstacles and develop exit points on the far bank, the engineers should cross early.

Each lead battalion should have at least one fording or assault/swimming site. They should be oriented on close-in exit bank objectives, while subsequent sites should provide good ingress and egress routes to enhance mobility and the buildup of combat power on the exit bank. Once the area is secured and the bridges and rafts are constructed, the force begins to pass as per the movement plan and crossing schedule.

### **Advance From the Exit Bank**

The advance from the exit bank extends from the RP/line to the bridgehead objectives. At the RP/line, the crossing commander relinquishes control of units to the assault force commander for continuation of the attack. The forces then attack generally along a narrow or a broad front, depending on the number of crossing sites in the sector or zone. In the rehearsal, the commander must balance the number of forces collected on the far side of the river in preparation for the attack against the length of time it takes to marshal them. This solution must enable the commander to commit sufficient force to destroy the enemy and maintain sufficient momentum to gain ground.

### **Securing the Bridgehead**

Securing the bridgehead requires control of an area on the exit bank that is large enough to accommodate the assault and essential support elements of the crossing force. Assault forces receive objectives that must be controlled for the area to be secure. Once in position, the forces move to ground and establish a hasty defensive perimeter around the bridgehead. A discussion of hasty defensive planning is in [Chapter 5](#).

The river crossing rehearsal includes the positioning of assets on the near side of the river, the assault and clearing of obstacles from the far side, the preparation of each bank, and the construction of the bridges and rafts that transport the force across the river. This only ensures the physical preparation of the crossing site. The brigade engineer also reviews the crossing and movement schedule to confirm the timing and positioning of forces.

In addition to the actual river crossing, the engineers must rehearse the flow of traffic to each crossing point as well as emplacing obstacles to protect the bridgehead from enemy counterattacks.

## **EXECUTION**

The brigade moves to the river using OPSEC measures to cloak their movement. If possible, the force will move at night or under the mask of smoke and suppressive artillery on known enemy positions. Pre-positioned reconnaissance elements adjust these indirect-fire measures to ensure optimum effectiveness. Once the assault force is in position, the support force commander calls for suppression of the far side objectives and enemy positions. As the fire begins to land, the force crosses the river under the supporting fire of stationary forces on the near side of the river.

Once the crossings have been secured, the assault force commander reports the status to the crossing force commander, who in turn directs the immediate construction of bridges and rafts. At this point, the crossing area commanders control all activities within the crossing area. Their initial concern, however, is the reinforcement of the assault force on the far side of the river. This ensures a secure bridgehead and protects the crossing operation.

As the follow-and-support forces cross the river and begin to assemble for the continued assault, they also assist the initial assault force in the protection of the perimeter, if necessary. However, once these forces are assembled, the assault force commander should begin the attack as quickly as possible. This serves two functions: it clears the area for the arrival of additional forces, and it maintains the momentum of the overall operation. When executed correctly, the attack keeps the enemy off balance and unable to effectively respond to the operation.

Other crossings, deception plans, and proper reconnaissance of enemy reserve locations are essential to the success of the operation. The enemy must be temporarily paralyzed during the establishment of the bridgehead, or its counterattacks could spell disaster for the assault force. In addition, the enemy should also be confused as to the actual intent of the crossing force, namely the locations of the crossings and objectives to be taken in support of the crossings.

During the operation, the FS plan must effectively suppress the enemy's ability to influence the assault force as it conducts its initial crossing of the river. Smoke missions mask the assault force initially; however, grazing fire across the surface of the river could cause many casualties and does not necessarily require target identification. As a result, reconnaissance elements must locate these enemy positions and target them as part of the preparation and suppressive fires during the assault.

Engineer forces initially concentrate on the clearance of obstacles on the far river bank and the preparation of the entrance and exit ramps for each crossing. Simultaneously, other engineer elements begin construction of rafts, bridges, and any other assets used to cross the river.

Outside of the actual crossing activities, engineers are required to maintain the road network leading to and away from the crossing sites. Also, survivability and countermobility operations may be required to protect the assault force from enemy counterattacks.

Initially, the air defense assets protect the force as it advances to the river line. Priority of protection most likely goes to the engineer equipment that is pre-positioned for the assault crossing. Once the assault force reaches the far side of the river line and adopts a hasty defensive posture, the ADA protection then extends across the entire crossing line.

As the brigade begins its advance to the river, the CSS pushes preloaded support packages

forward to the force. Specifically, ammunition is the primary concern during the initial stages of the operation, due to the amount required for suppression in defense of the bridgehead area. UMCP and LP locations should be placed along the routes leading to each crossing site, and recovery assets should be positioned to maintain trafficability at the crossing sites.

Recovery of wounded personnel in the assault force must be tied into the return rafting. Likewise, ambulances should be located at the sites to quickly transport the casualties to the aid stations or FSB treatment section.

The hasty river crossing is one of the most complicated and dangerous operations to execute. It is dangerous because it is easy for either the attacker or defender to locate the positions of the enemy. Similarly, air assets are able to identify the target area easily as they navigate along the river line. Therefore, the commander must be prepared to execute this operation under fire. His leadership is crucial in moving the forces across the river and assaulting the bridgehead objectives.

Assault forces advance quickly, without extensive reorganization, from crossing areas to objectives within the bridgehead. The enemy, given time, attempts to halt the advance with strongpoint defenses, heavy artillery fires, and counterattacks. Therefore, comprehensive SOPs, detailed planning, and rapid execution enhance the probability of success.

### **Advance From the Exit Bank**

The advance from the exit bank extends from the RP/line to the bridgehead objectives. At the RP/line, the crossing area commander relinquishes control of units to the assault force commander for continuation of the attack. The location of the RP/line is a function of terrain and expected battle and is mutually determined by the commanders.

RPs/lines may be located 2 to 3 kilometers from the exit bank. This distance allows the assault force commanders to assemble their forces for continuation of the attack. Further, the clearance of this distance by follow-on and support forces, supported by tank and artillery fire under control of the crossing area commander, precludes direct fire on assault forces while they are still in the the water. RPs/lines are therefore located to facilitate the operation, control, and security of forces moving through the crossing area (see Figure 6-11).

### **Combat Service Support Sustains the Attack**

Decentralized and prepackaged support accompanies the lead elements when possible. Rearming, refueling, and maintenance points are established along advance routes to speed up servicing. The remainder of the BSA positions itself beyond the range of enemy artillery, if possible, and crosses after the follow-on forces. Adequate Classes I, III, V, and IX supplies must initially accompany combat forces across the river to ensure sustainability of lead elements, even if crossing operations are temporarily suspended due to enemy activity.

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## **SECTION VIII. APPROACH MARCH**

Brigades normally conduct an approach march as part of a larger unit formation. The brigade

may conduct an approach march when they are relatively certain of the enemy's location and are an extended distance from the enemy. An approach march requires continuous intelligence on the enemy and dominance over the effects of enemy indirect fire and air assets.

The brigade commander designates the march objective as well as the point the brigade disperses and assumes a formation that reduces the risk of initial contact and allows freedom of maneuver to subordinate units, thus avoiding a meeting engagement. The approach march allows the brigade to maneuver to attack or defend, and ends when an objective or area is seized, or the enemy force defeated. The desired outcome of an approach march is a deliberate attack or deliberate defense.

The organization of forces for conducting an approach march is similar to the organization of forces for conducting a movement to contact. The brigade retains security to the front, flanks, and rear. The main body forces move as one organization. CS and CSS assets move internal to the brigade as necessary to support the planned operation after the point of deployment. The commander still plans for possible enemy attacks along his route of march.

Units with automated command and control systems, enhanced FS systems, global positioning navigation systems, and advanced target acquisition systems may conduct an approach march in a decentralized manner on separate routes.

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# FM 71-3

## The Armored and Mechanized Infantry Brigade

### CHAPTER 7 SUPPORT OF COMMAND OPERATIONS

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### SECTION I. GENERAL

The application of superior combat power at the decisive time and place determines the outcome of the battle. The commander uses his CS assets to enhance the capabilities of his maneuver unit and to weight his main effort. Knowing CS capabilities, assigning them appropriate missions, and synchronizing their operations are essential to the application of superior combat power at the decisive time and place.

To be most effective, CS elements cannot be simply added into the commander's plan. They must be an integral part of it, not an afterthought made to adhere to a scheme of maneuver. Commanders frequently view CS as something added to the plan to make it better. This add-on nature reduces these critical elements from combat multipliers to merely combat additives. CS representatives must be involved at the outset in the staff planning sequence. The commander's intent must be clearly articulated as to what he wants to do to the enemy for the CS elements to prepare employment recommendations. The commander may then select a COA that synchronizes maneuver, fires, and CS into a cohesive battle plan.

## SECTION II. FIRE SUPPORT

### FIRE SUPPORT SYSTEM

#### General

FS is the collective and coordinated use of indirect-fire weapons, armed aircraft, and other lethal and nonlethal means in support of a battle plan. FS includes FA, NGF, and air-delivered weapons. Nonlethal means are EW capabilities of MI organizations, illumination, PSYOP, and smoke. FS encompasses careful integration of all available attack systems. Synchronization is the key to success. The brigade commander and his FSCOORD must know the capabilities and limitations of the systems available. The brigade commander employs these means to support his scheme of maneuver, to mass effects of fires, and to delay, disrupt, or destroy enemy forces in depth. FS planning and coordination exist at all echelons of maneuver.

FS enhances the maneuver commander's combat power by:

- Destroying, suppressing, and neutralizing targets. A discussion of these terms begins on [page 7-3](#).
- Obscuring the vision of enemy forces.
- Isolating enemy formations and positions.
- Slowing and canalizing enemy movements.
- Killing or disabling the enemy at ranges greater than that of direct-fire weapons.
- Screening with smoke or isolating areas with scatterable mines.
- Reducing the effect of enemy artillery by active counterfire.
- Interdicting following threat echelons.
- Providing shock effect and confusion.

#### Components

The FS system supporting the armored forces is the collective body of target acquisition and battlefield surveillance; attack systems (lethal and nonlethal) and munitions; command and control and coordination systems and facilities; technical support (meteorological and survey); and the personnel required to provide and manage FS. ADA and engineer assets may also become important components of the FS system.

#### *Target Acquisition Assets*

The maneuver brigade or battalion FSO has several FA target acquisition assets available to call upon for use in detection of targets. The FA battalion supporting the brigade may have an attached AN/TPQ-36 (firefinder weapons-locating radar). The AN/TPQ-37 is found at division or corps. If this radar is covering the brigades sector, useful information may be available to S2s. OH-58A/C and OH-58D helicopters may be operationally controlled by the division or DIVARTY. Also, a UAV may be available to the brigade for target acquisition and attack. The

brigade FSO and targeting officer request, plan, and coordinate these systems to achieve the commander's intent and scheme of fires. The commander ensures the planning, coordination, and synchronization of these assets occur and that this information is exchanged among his staff. HUMINT from FOs and COLTs should also be considered a valuable source.

## **Attack Systems**

The attack could be lethal or nonlethal (such as smoke, illumination, PSYOP, and offensive EW). Assets normally available at brigade level and below are FA, combat air support, communications jammers (see [Section X](#) of this chapter for a discussion of communications jammers), NGF, and attack helicopters.

### ● **Field Artillery**

Normally, one FA battalion is in DS of a committed maneuver brigade. However, more artillery battalions can be assigned the mission to reinforce the DS battalion.

The division commander and his FSCOORD (usually the DIVARTY commander) normally place at least one FA battalion in DS of a committed maneuver brigade. Additional FA units may reinforce DS battalions and/or provide GS reinforcing fires to the brigade based on availability and priorities of the division battle.

The advantages of FA are that it:

- Adds depth to the battlefield. The FA can strike and destroy the enemy deep before he can influence the battle.
- Provides first round fire for effect capability.
- Provides a variety of ammunition and fuze combinations.
- Provides continuous fire under all weather conditions, day or night, and from all types of terrain.
- Provides responsive shifting and massing of fires.
- Provides cross-country mobility compatible with the task force.

The disadvantages of FA are that it:

- Is an area fire weapon. However, point targets can be destroyed by using terminally guided munitions.
- Has a limited ability to survive enemy ground, air, and artillery attacks. Weapons can be detected because of their large signature from communications and firing. Therefore, artillery must displace frequently.
- Has limited ability to bring timely and accurate massed fires on moving targets without detailed coordination and planning.
- Must be observed fire to be effective.

The maneuver commander must decide what effect FA must have on a particular target. The three types of fires are

- Destruction. Destruction puts a target out of action permanently. Direct hits are required to destroy hard materiel targets. Usually, destruction requires large expenditures of



ammunition and is not considered economical. Thirty percent or more casualties normally render a unit ineffective.

- **Neutralization.** Neutralization knocks a target out of action temporarily. It does not require an extensive expenditure of ammunition and is the most practical type of mission. Most missions are neutralization fire. Ten percent or more casualties may neutralize a unit.
- **Suppression.** Suppression of a target limits the ability of the enemy personnel in the target area to perform their jobs. The effects of these fires usually last only as long as the fires are continued. Suppression requires a small amount of ammunition; however, since its effects are not lasting, it is unsuitable for most targets.

Indirect fires are divided into two categories:

- **Observed fire.** Observed fire is fire for which the points of impact can be controlled by an observer. The most economical use of indirect-fire weapons is attained by ensuring fire is observed when accuracy cannot be guaranteed.
- **Unobserved fire.** Unobserved fire is fire for which the points of impact are not observed. It involves predicting where targets are, or will be, and placing fire on them. Use of unobserved fire requires follow-up activity to assess effectiveness. This is the least efficient means of employing fires.
- ***Combat Air Support***

Air support is provided by the Air Force, Navy, and Marine Aircraft Wing if available. The mission is to support Army operations by providing air interdiction and CAS operations. At the brigade, CAS is the primary support mission. CAS involves air actions against hostile targets that are in close proximity to friendly forces and require detailed integration of each air mission with the fire and movement of friendly forces. The missions are distributed to each corps by the land component commander. The corps commander then further distributes the CAS missions down the Army chain of command. Usually, CAS missions are distributed no lower than brigade. CAS targets are either preplanned or immediate. Preplanned and immediate air requests are discussed in greater detail in [Section III](#), Combat Air Support.

- ***Naval Gunfire***

The mission of NGF is to assist the ground force by destroying, neutralizing, or suppressing targets that oppose that force. NGF provides limited volumes of FS close to coastal waters. Most cruisers, destroyers, and some frigates carry 5-inch guns with over 21 kilometers of range.

The advantages of NGF are that it:

- Fires a variety of munitions and fuzes, including HE, WP, and illumination.
- Has a flat trajectory. This makes naval guns particularly effective against vertical-face targets such as coastal fortifications.
- Can deliver a large volume of fire in a relatively short period.

The disadvantages of NGF are that it:

- Has limited calibers available.
- May have a large range error. Always try to ensure that the ship does not fire toward or

directly over friendly troops.

- Is less accurate in rough seas.
- Can expend a limited quantity of ammunition. All ships must keep some ammunition to protect themselves from enemy air or surface attacks. Self-preservation and preservation of the fleet are their first priority.
- Has limited interoperability between the ship and ground force communications. The ship's radios are high frequency (HF) amplitude modulated (AM) and are not compatible with the standard Army frequency modulated (FM) radios.
- Has a flat trajectory so it is less effective than FA against targets on reverse slopes.
- ***Attack Helicopters***

Attack helicopter units are not generally attached lower than division level, but they may be placed OPCON to a brigade. Attack helicopters rarely do fire support missions, but are capable of this mission and limited CAS because they are both sensors and shooters. In fact, as a shooter, they possess direct and indirect fire weapons. However, aviation units should be addressed under the "maneuver" section of paragraph 3 in an OPORD and not under the "fires" section. On the basis of the commander's risk-versus-payoff assessment, AH-1 and AH-64 attack helicopter units and the OH-58D (Kiowa Warrior) observation helicopter unit may be tasked to provide FS in certain situations (for example, in deep operations or while supporting ground maneuver forces in OOTW).

The advantages of attack helicopters are that they:

- Have a variety of munitions including wire guided and laser guided missiles.
- Are capable of attacking targets within 500 meters of friendly troops.
- Can fire aerial rockets indirectly at extended ranges.
- Possess rapid mobility throughout the battlefield.
- Can destroy point targets and moving targets.
- Deliver, guide, and help guide smart laser munitions.

The disadvantages of attack helicopters are that they:

- Are vulnerable to enemy air defense and counterair.
- Have limited loiter times.
- Require SEAD and may interrupt FA fires due to the risk to the aircraft.
- Require large amounts of rocket ammunition for effective attacks if the rockets are fired indirectly.
- Sacrifice antiarmor systems to permit aerial rocket fire.

### ***Fire Support Key Personnel***

- ***Brigade Commander***

The brigade commander sets the guidance for FS and ensures the DS FA battalion commander (FSCOORD) understands what he wants and when he wants it. He ensures his



FS plan is synchronized with the maneuver plan and details the mission he wants his FS systems to accomplish. The brigade commander is charged with the following:

- Ensures his staff comes together to integrate obstacles, R&S, fires, and maneuver.
- Approves the fires paragraph, high-payoff target list, and attack guidance matrix.
- Trains commanders to know, understand, and execute targets in their zones.
- ***Maneuver Brigade S2***

The S2 is charged with identifying, templating, and predicting enemy actions. This allows the FSO to help determine possible artillery COAs as well as preliminary position requirements. The brigade S2 is an integral part of the brigade targeting team. He nominates HVTs, evaluates known and suspected enemy target data, and coordinates attack of targets with EW assets. His R&S plan synchronizes targeting requirements with available collection assets.

- ***Maneuver Brigade S3***

The S3 ensures the FSE is integrated into the planning process and requests input from the FSCOORD about FS assets. He must fully integrate the FS systems into the plan using the synchronization matrix, DST, and combined arms rehearsals. He is the driving force behind positioning coordination for the FA, and conducts the brigade targeting meeting.

- ***Direct Support Field Artillery Battalion Commander***

The DS FA battalion commander is FSCOORD for the brigade. He is specifically responsible for all FS planning and coordination for the maneuver brigade. The DS battalion commander provides an assessment of current and near-term capabilities of his unit and of other FS assets supporting the force. Duty location of the DS FA battalion commander at any given time is where he can best execute the maneuver commander's intent for FS. In addition to supporting the brigade, the DS FA battalion commander is responsible for:

- Training the FS system and his battalion to perform successfully all stated and implied missions and tasks associated with providing FS to a maneuver force.
- Continuously articulating his assessment of the current and future capabilities and status of all FS assets supporting the maneuver force. This assessment may be obtained from reports or by personal observation, at the FSCOORD's discretion.
- Providing a knowledgeable, experienced officer as brigade FSO. The FSCOORD must establish a special mentor relationship with this officer since the FSO, in the absence of the FSCOORD, personally represents him to the brigade commander. More than any other officer, the FSO must understand the FSCOORD's intent in supporting the maneuver plan. In addition, the FSCOORD must ensure that his brigade FSO is equally conversant on the FSCOORD's assessment of FS assets supporting the maneuver force.
- Approving the DS battalion FA support plan.

## **BRIGADE FIRE SUPPORT ELEMENT ORGANIZATION**

The brigade FSE is organized with the following personnel:

- FSO (major).
- FS plans/targeting officer (WO2).

- FS sergeant (sergeant first class).
- Two FS specialists.

When added to the FSE to perform their FS functions, other representatives serve to enhance and speed FS coordination. These representatives may include

- The ALO, for coordination and employment of Air Force assets in support of the brigade.
- The NGLO, for coordination and employment of NGF and naval air in support of the brigade.
- The brigade chemical officer, for deployment of NBC defense and use of chemical, riot control, obscurant, and aerosol agents.
- The S3-Air, to serve as maneuver assistant S3 and to coordinate employment of combat air with Army aviation and the FSO, ALO, and air defense platoon leader.
- Other representatives as required, such as LOs of allied forces supporting the operation or Army aviation LO when Army aviation is used as an FS asset.
- The FSO should have a working knowledge of the duties of the following staff members who may be in the brigade TAC CP.

The brigade ADA battery commander manages the air defense assets in support of the brigade. He may have valuable information on the location of enemy air defense targets, airspace coordination, and the enemy air situation.

The brigade engineer manages engineer assets in support of the brigade operation. He assists in the coordination of the integration of obstacles and fires, the use of all FASCAM, and general mobility and survivability requirements.

The IEW representative from the divisional combat EW and intelligence battalion controls and supervises the IEW assets in support of the brigade. He can provide some targets and information and is the tie-in for the offensive use of jamming. The FSO needs a working knowledge of the IEW assets available from this source to effectively coordinate their use in the attack of targets.

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## **SECTION III. COMBAT AIR SUPPORT**

### **TYPES OF AIR SUPPORT**

The Air Force provides the Army with five types of air support: CAS, combat air reconnaissance, tactical airlift, electronic combat (EC), and battlefield air interdiction. Brigades allocate CAS and combat air reconnaissance. Airlift, air interdiction, and EC are normally allocated at division and higher.

#### **Close Air Support**

CAS is defined as air attacks on hostile surface forces that are in close proximity of friendly troops. CAS can be employed to blunt an enemy attack, support the momentum of the ground attack, or provide cover for friendly movements. For best results while avoiding mutual

interference or fratricide, aircraft are kept under "detailed integration" (part of the Air Force's combat air system). The effectiveness of CAS is directly related to the degree of local air superiority attained. Until air superiority is achieved, competing demands for CAS and counterair operations for available aircraft may limit sorties apportioned for the CAS role. CAS is the primary support given to committed brigades and battalions. Nomination of CAS targets is the responsibility of the commander, ALO, and S3 at each level.

## **Combat Air Reconnaissance**

Combat air reconnaissance is designed to furnish timely and accurate information on the location, composition, activity, and movement of enemy forces. The mission is flown by high-performance aircraft at high or low altitude, day or night, and in all weather conditions. The inherent nature of air reconnaissance means that it is best used in support of operations 12 to 24 hours ahead and, for that reason, is usually tasked to division level and higher. The brigade S2 requests combat air reconnaissance in support of his intelligence collection process.

## **COMBAT AIR CONTROL SYSTEM**

To ensure the proper integration and planning of both ground- and air-delivered FS, the battalion commander collocates his Army and Air Force FS personnel. The FSE from the DS FA battalion and the TACP from the Air Force work closely together to ensure the battalion receives the FS it requires. The duties of the FAC are carried out by the ALO or controller-qualified enlisted personnel assigned to the TACP.

The TACP at battalion level and above advises the Army unit commander on the capabilities, limitations, and employment of combat air. It also calls in requests for CAS and controls it once it comes on station. At battalion level, the TACP consists of an ALO and two enlisted terminal attack controllers. These personnel can operate on foot, from ground vehicles, or from fixed- or rotary-wing aircraft. Although not a part of the TACP, there is one other player in this system. The TAC-A normally operates from a fixed-wing aircraft clear of enemy surface-to-air weapons. He coordinates the aircraft that are engaged in CAS but normally does not provide terminal attack control. In the absence of a TACP, Army unit FSEs can provide emergency requests and control of CAS aircraft.

## **CLOSE AIR SUPPORT PLANNING CONSIDERATIONS**

CAS mission success is directly related to thorough mission planning based on the following factors and considerations.

### **Weather**

Does the weather favor the use of aircraft? What is the forecast for the immediate future? Weather is one of the most important considerations when visually employing weapons; it can hinder target identification and degrade weapon accuracy.

### **Target Acquisition**

Targets that are well camouflaged, small and stationary, or masked by hills or other natural terrain are difficult to identify from fast-moving aircraft. The use of marking rounds can enhance target identification and help ensure first-pass success.

## **Target Identification**

This is critical if CAS aircraft are to avoid attacking friendly forces by mistake. It can be accomplished by providing a precise description of the target in relation to terrain features easily visible from the air. Smoke, laser target marking, or other means can also be used.

## **Identification of Friendly Forces**

Safe means of friendly position identification include mirror flash, marker panels, and direction and distance from prominent land features or target marks.

## **General Ordnance Characteristics**

What types of targets are to be engaged, and what are the desired weapon effects?

## **Final Attack Heading**

Choice of the final attack heading depends upon considerations of troop safety, aircraft survivability, and optimum weapon effects. Missiles or bombs are effective from any angle. Cannons, however, are more effective against the sides and rears of armored vehicles.

## **Troop Safety**

This is a key consideration in using CAS. The primary cause of friendly fire on friendly troops is misidentification of those troops as enemy forces.

## **Suppression of Enemy Air Defense**

SEAD is required based on the capabilities of the aircraft and presence of enemy air defense systems in the target area.

## **Close Air Support and Artillery Integration**

Army artillery and combat air power are complementary. Because artillery support is more continuous and faster to respond than CAS, CAS missions must be integrated with artillery so that limited firing restrictions are imposed. The airspace coordination area (ACA) is the FSCM used to accomplish this integration. There are four standard ACAs: lateral, altitude, timed, and altitude and lateral separation.

Other planning factors that must be considered are time available for planning; command, control, and communications; and terrain.

## **Night Planning and Operation Considerations**

In a high-intensity, high-threat environment, the capabilities of CAS aircraft employed at night are very limited. To improve the capabilities of night CAS, the Air Force is acquiring additional night-capable systems such as the low-altitude navigation and targeting infrared for night (LANTIRN) system. Despite the limitations, CAS aircraft still have a few advantages while attacking at night. The most important advantage is the limitation darkness imposes on enemy optically sighted and infrared anti-aircraft systems. This is true if they do not have NVDs. Airborne or ground-based illumination can also degrade enemy night vision capabilities.

The two most important requirements of a night CAS operation are identification of the enemy or target and positive marking of friendly unit locations. The ground maneuver commander should rely on his own Army assets to accomplish the marking and illumination requirement. Although flares released from airborne FACs, other CAS aircraft, or "flare ships" can effectively illuminate target areas, ground artillery and heavy mortar-fired illumination are normally preferred due to the continuous capabilities of sustained indirect fire.

Marking friendly unit locations improves joint air attack team (JAAT) and CAS safety and can also provide target area references. Tracers and radar beacons can serve both purposes. If safe separation is a factor, friendly unit marking is critical. Fired into the air, 40-mm illumination grenades and flares are effective, but they may be useful to the enemy as well. Flares used during limited visibility operations can create the "milk-bowl" effect, making it more difficult for a CAS aircraft to find its target. When used under a low cloud ceiling, flares can also highlight the aircraft against the cloud cover. Strobe lights are very good night markers. They are commonly used with blue or infrared filters and can be made directional by the use of any opaque tube. In overcast conditions, strobe lights can be especially useful. Aside from the obvious security considerations, almost any light that can be filtered or covered and uncovered can be used for signaling aircraft.

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## SECTION IV. JOINT AIR ATTACK TEAM OPERATIONS

A JAAT operation is an aviation operation capable of adding to the lethality of combined arms operations. The JAAT may operate either integrated into close operations or it may operate independently to the front of ground units. A JAAT is a highly mobile and lethal tank-killing force that can engage the enemy beyond the range of ground AT weapons.

The JAAT can be employed during the conduct of offensive or defensive operations and is especially useful to counter enemy airmobile or Army operations insertions in friendly rear areas. A JAAT can be employed to accomplish specific tasks during the conduct of combined arms team operations. Offensively, the commander can best use the team against enemy counterattacks or in the exploitation or pursuit role.

The ground maneuver commander has overall responsibility for planning and employing the JAAT. When the brigade commander determines that his maneuver forces need increased combat assets to attack a lucrative target array, he requests attack helicopters and CAS aircraft. When attack helicopters are OPCON to a brigade, the commander, on the advice of his FSCOORD, ALO, and attack helicopter battalion commander, requests CAS aircraft through preplanned or immediate air channels.



Planning a JAAT operation is complex and requires detailed coordination between the brigade commander/S3, FSO, ALO, and attack helicopter battalion commander. See FM 90-21 for further details on JAAT operations. The scheme of maneuver, CAS, and FS must be integrated to the maximum extent possible. Planning considerations include

- Nature of target.
- Enemy avenues of approach.
- FS coordination.
- Airspace control.
- Provisions for SEAD.
- Communications.
- Current ground tactical plan.
- Contact points/initial points.
- Weather.

Although JAAT assets may be requested and planned for, the brigade commander must be prepared to execute his maneuver plan without some or all of the JAAT components.

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## **SECTION V. NAVAL AND MARINE FIRE SUPPORT**

### **GENERAL**

NGF provides large volumes of immediate FS close to coastal waters. Normally, naval fires are controlled by a NGLO attached to the FSE for a specific operation.

### **ORGANIZATION**

NGF in a US Army unit is coordinated through the air and NGF liaison company. The air and NGLO is a Marine organization which consists of three brigade air/NGF platoons organized and equipped to plan, request, coordinate, and control NGF and naval air. Figure 7-1 shows the organization of the air and NGLO. Each platoon has supporting arms liaison teams (SALT) that are normally provided to maneuver battalions. The SALT consists of two officers and six personnel, who become part of the unit's FSE. The SALT has two firepower control teams (FCT) that may be provided to maneuver companies to request, observe, and adjust naval FS. The SALT officers coordinate all NGF and supervise the activities of the FCTs. In addition, they advise the FSCoord on all matters pertaining to NGF employment

### **COORDINATION AND PLANNING**

The NGF liaison team of the brigade operates on the division NGF support net (HF). This net provides communication between the division naval gunfire officer (NGO), the brigade NGLO and the ship(s) in support of these units. This net is used for the day-to-day planning between units. No direct naval communications exist between the FCTs and SALTs. FS or maneuver nets must be used to communicate between these two teams. Requests for FS are transmitted

to the air and NGF team (at brigade or division), which forwards it to the ship. The NGO at division monitors and/or coordinates as necessary. This coordination is much the same as for FA engagement.

When NGF is available and air and NGLO personnel are not available, units may request NGF through the FS net to the division where the NGO is located with the division FSE. To increase response time for adjustments, Army personnel may interface with the NGF unit if the following equipment is available:

- NGF ground spotter net (frequency 2-30 MHz HF).
- Compatible equipment:
  - Army: GRC-106, GRC-193.
  - USMC: PRC-104, GRC-193, MRC-138.
  - Air Force: PRC-104, MRC-107/108, GRC-206.

A complete understanding of the characteristics of NGF is essential to its successful use in ground support.

## **EMPLOYMENT**

NGF ships are assigned the missions of DS or GS in the same way as artillery is organized for combat.

### **Direct Support**

A ship in DS usually supports a battalion. This ship can deliver both planned and on-call fires. On-call fires are normally requested and adjusted by the FCT of the supported unit or by an air spotter.

### **General Support**

A ship is usually placed in GS of a brigade or division. The fires for the GS ship are conducted as directed by the NGO of the supported unit.

The primary purpose of a DS ship is to allow the supported commander to add depth to the fires of his artillery without the necessity for requests to higher echelons.

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## **SECTION VI. MOBILITY AND SURVIVABILITY**

### **GENERAL**

Combat engineers are an integral part of the combined arms team. Engineers adapt terrain to enhance the battle effectiveness of fire and maneuver. The orientation of engineers in support of a brigade is forward; their efforts are designed to support forward fights.

### **ENGINEER FUNCTIONS**

Combat engineers provide five primary engineer functions:

- **Mobility.** They enable the commander to maneuver tactical units into positions of advantage over the enemy.
- **Counter mobility.** They reinforce terrain with obstacles to hinder enemy operations and maximize the effectiveness of direct and indirect fire.
- **Survivability.** They reduce the effectiveness of enemy weapon systems by developing protective positions in favorable locations.
- **General engineering.** They provide the force construction, LOCs maintenance and repair, airfield damage repair, battle damage restoration, and minefield clearing needed to sustain operations.
- **Topographic engineering.** They provide the commander with terrain analysis to aid in the planning and conduct of combat operations.

## **TASK ORGANIZATION OF COMBAT ENGINEERS**

The heavy division has one organic divisional combat engineer brigade. Each committed maneuver brigade normally has an engineer battalion in DS and habitually associated. The actual level of engineer support is adjusted based on METT-T analysis.

### **Combat Engineer Battalions**

#### ***Divisional Combat Engineer Battalion***

This unit is organic to the engineer brigade with one engineer battalion per maneuver brigade. The engineer battalion performs engineer battlefield functions for their supported maneuver brigade in the heavy division in the AO, focusing on mobility, counter mobility, and survivability. Each divisional engineer battalion has three combat engineer line companies, a headquarters company, and a support platoon (see Figure 7-2).

#### ***Corps Combat Engineer Battalions***

These corps units may work within the brigade's AO. Units, if assigned to the brigade, work under the control of the brigade engineer.

### **Combat Engineer Companies**

#### ***Divisional Combat Engineer Company***

The divisional company has two line platoons and an assault and obstacle platoon. The assault and obstacle platoon has two assault sections and one obstacle section used to augment the line platoons (see Figure 7-3).

#### ***Corps Combat Engineer Company (Mechanized)***

This corps unit has two line platoons and an assault and obstacle platoon. The squad vehicle is an M113 APC. The corps combat engineer company (mechanized) only has six armored

combat earthmovers (ACE), whereas the divisional company has seven ACEs.

### ***Separate Brigade/Armored Cavalry Regiment Engineer Battalion***

The separate maneuver brigade has an organic engineer battalion. The separate brigades engineer battalion organization is the same as the divisional combat engineer battalion.

## **DIRECT SUPPORT ENGINEER BATTALION COMMANDER**

The DS engineer battalion commander is responsible for all engineer planning and coordination for the maneuver brigade. The engineer battalion commander provides an assessment of current and future capabilities of his unit and other mobility/survivability assets supporting the brigade. The brigade engineer positions himself where he can best accomplish the intent of the brigade commander. In addition to supporting the brigade, he is responsible for:

- Training his battalion to accomplish all assigned and implied tasks associated with supporting the brigade.
- Updating and articulating his assessment of the current and future capabilities and status of all mobility/survivability assets.
- Approving the mobility/survivability support plan.

## **ENGINEER OPERATIONS**

### **Command and Support Relationships**

Engineer platoons work most efficiently under the control of an engineer company, and engineer companies work most efficiently under the control of an engineer battalion. This permits close control and the most productive use of all engineer assets. The engineer commander continuously monitors the progress of assigned tasks and shifts elements where the need is greatest throughout his AO. On the other hand, the maneuver commander at the lowest level gets greater responsiveness when the engineer company is under his control. He determines the task organization and gives missions directly to the engineer elements under him. The decision whether to provide engineers in a command or support relationship to a subordinate maneuver headquarters is an important one. The higher maneuver commander must weigh his need for flexibility and responsiveness and his option to task organize engineer forces against the most efficient use of scarce engineer assets.

### **Organizational Principles**

The following principles apply when employing combat engineers:

- Task organize the engineer force to the requirements of the mission.
- Give priority to the main effort (mass the engineer effort). Avoid piecemealing engineers to provide every unit a "slice." Provide the main effort with enough engineer support to succeed.
- Integrate engineers with maneuver and fires.
- Do not hold engineers in reserve (that does not mean that the reserve maneuver force

should not have engineers).

- Augment engineers logistically to support the plan. Engineers may need additional time, materiel, and transportation assets to execute the maneuver plan.
- Plan to exploit local resources. Commercial equipment and materiel may be used to support military mobility, countermobility, and survivability operations.

## **Engineers Fighting as Infantry**

Any commander who controls engineers in a command relationship, unless otherwise prohibited, has the authority to employ them as infantry. Because of the long-term impacts, the commander employing an engineer unit as infantry has the responsibility to notify the next higher headquarters of his action. In his decision to do so, he must carefully weigh the gain in infantry strength against the loss of engineer support. Because of the long-term impact, the commander employing an engineer unit as infantry has the responsibility to notify the next higher headquarters of his action.

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# **SECTION VII. NUCLEAR, BIOLOGICAL, AND CHEMICAL OPERATIONS**

## **SECTION ORGANIZATION**

The brigade chemical section consists of the brigade chemical officer (captain) and a chemical operations NCO (sergeant first class; MOS 54B40). Equipment in the NBC section includes appropriate doctrinal manuals, map boards, overlays, a work station, hazard templates, and status charts.

## **OPERATIONAL CAPABILITIES**

Organization of deployed brigades may be somewhat different. However, their functions and duties are similar to those of a divisional brigade. The brigade chemical officer works as an assistant operations officer in the operations section of the brigade. Both the officer and NCO are assigned by modified table of organizations and equipment (MTOE) to the headquarters company or troop. Through staff visits, coordination, and inspection of subordinate units, the brigade chemical section is the focal point for NBC operations. This is accomplished in garrison as well as in the field.

## **FACILITIES, ORGANIZATION, AND DUTIES**

During field operations, the brigade chemical personnel provide 24-hour NBC operations capability. A work station is designated in the TSOP for the main CP where chemical information is to be processed and disseminated. The chemical officer is available to cover shift changes within the main CP and provide chemical continuity for tactical operations. However, the section is organized into two distinct yet flexible shifts. In addition, upon movement of the main CP, one person can move to the TAC CP to continue the battle or move with the TAC CP in anticipation of a main CP jump, allowing for one person at each site. It is not recommended



to leave these shifts split due to the possibility of overburdening.

Brigade chemical personnel are instrumental in the planning cycle of all tactical operations. They assist the S2 in the IPB process and integrate and synchronize NBC defense and smoke operations to support courses of action. Once the plan is developed, they ensure execution.

Duties and responsibilities of chemical personnel in the brigade main CP are listed in the following paragraphs. These are not all-inclusive and are manipulated to meet changing situations. In addition to these specific chemical duties, chemical officers and NCOs also perform a myriad of operational duties according to their abilities and unit needs.

## **Training**

Monitor, evaluate, and determine training needs and provide technical training; plan and coordinate training; conduct NBC battle focus; evaluate status of training. Aid in professional development of subordinate chemical personnel.

## **Evaluation**

Provide NBC expertise as evaluator; analyze results and present facts; develop solutions to correct deficiencies.

## **Readiness**

Consolidate and provide data to command group; assist S4 with NBC stocks and resupply; monitor contingency stocks.

## **Logistics**

Account for NBC expenditures; follow up requisitions and maintenance; balance equipment on hand and requisitions.

## **Administration**

Write and update NBC annex to SOP; maintain current publications; remain proficient in current doctrine; maintain liaison with subordinate units and higher headquarters.

## **Field Operations**

Execute NBC warning and reporting system; maintain current operations overlay; post NBC attack overlay; with S4, develop contaminated MSR overlay; maintain decontamination overlay and post NBC unit symbols; conduct NBC vulnerability analyses; maintain radiation status charts; recommend MOPP levels and employment of chemical assets.

## **OPERATIONS**

When planning offensive or defensive operations, the commander must recognize that NBC weapons can significantly affect his scheme of operations. All threat forces train extensively for

operations on a battlefield where NBC weapons are used. They carry a complete array of individual and vehicle NBC protective gear. Some threat forces have armored vehicles that provide pressurized protection for crews. Most threat forces integrate smoke into their scheme of maneuver.

During movement to contact operations, the primary emphasis is on the most trafficable terrain. Aggressive reconnaissance to identify enemy locations and areas of possible NBC contamination must be conducted. Through the use of chemical personnel at brigade level, provisions are made to overcome these obstacles and facilitate movement.

In nuclear warfare, a formation with two or more task forces abreast and a reserve may be adopted in the attack when a successful penetration has been created by other forces. This allows the brigade to attack on a broader front, presenting a less lucrative target. Offensive forces also face a variety of obstacles in defeating the enemy. Actual obstacles constructed forward of, between, and within strongpoints are designed to canalize friendly forces into areas favorable to the defending force or to cause forces to mass and create a profitable target for conventional and/or nuclear fires. When heavy OPFOR are in the defense, the use of chemical agents and smoke can be expected to complement their barrier plan.

Plans must be developed for delaying the concentration of forces and rapid dispersal after mission accomplishment. Reducing vulnerability and the period of risk are major considerations while forces are concentrated. Planning for the use of routes to, on, and through objectives must be complete, and movement must be controlled.

Before and during either the offensive or defensive phase of combat operations, the chemical officer continuously monitors the biological and chemical situation and event development. His IPB analysis factors the weather, terrain, enemy biological/chemical employment doctrine, biological/chemical sensor capabilities and limitations, and field behavior of biological/chemical agents. He uses the information reported by the corps biodetection company and/or other battlefield sensors to initiate the analysis process. The chemical officer analyzes and evaluates biological/chemical surveillance information and, based on this development of the situation, works with the S2 and S3 to assist in the preparation of recommended COAs and the commanders decision-support graphics.

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## **SECTION VIII. SMOKE OPERATIONS**

Properly planned and executed smoke operations become a combat multiplier when they increase survivability of friendly forces and degrade enemy command, control, communications, and intelligence capabilities. Specifically, smoke can be used to:

- Deny the enemy information.
- Reduce effectiveness of enemy target acquisition means.
- Restrict nap-of-the-earth and contour approaches for aircraft.
- Disrupt enemy movement, operations, and command and control.
- Create conditions to surprise the enemy.
- Deceive the enemy.

- Weaken the thermal effects of nuclear weapons.

The brigade employs two categories of smoke - hasty and deliberate. Hasty smoke is employed for short-term requirements with a minimum of planning. It may be delivered by all smoke assets, but is normally delivered by artillery, mortars, and smoke pots. Deliberate smoke is characterized by integrated planning. It is used over extended periods to cover friendly activities throughout an entire operation. Although it is normally employed to conceal friendly units, it may also be used to blind enemy units. Deliberate smoke is normally produced by mechanical generators and smoke pots. Either type of smoke can be used to deceive the enemy.

Smoke has four general applications on the battlefield:

- Obscuration smoke. Obscuration smoke is employed on or against the enemy to degrade its vision both within and beyond its location.
- Screening smoke. Screening smoke is employed in friendly AOs or in areas between friendly and enemy forces to degrade enemy ground and aerial observation and defeat or degrade enemy electro-optical systems. Screening smoke is employed to conceal ground maneuver, breaching and recovery operations, key assembly areas, and supply routes.
- Protecting smoke. Protecting smoke is used to defeat enemy guidance systems or to attenuate energy weapons on the battlefield. For example, smoke can be used to degrade the effects of lasers, high-power microwaves, particle beams, and non-nuclear, directed electromagnetic pulse.
- Identification or marking smoke. Marking smoke is employed to identify targets, supply and evacuation points, and friendly unit positions. It also provides for prearranged battlefield communications.

Smoke planning is a part of the overall tactical plan. Each echelon of command plans for employment of smoke to support its operations. The brigade S3 has primary staff responsibility for planning smoke operations with the advice and support of the FSO, S2, S4, chemical officer, and staff weather personnel.

In the offense, smoke can be used to deny the enemy information about the size and composition of friendly forces and location of the main attack. A smoke screen can be placed either to the front or to the flanks. When the enemy cannot be screened effectively, obscuring smoke may be required. To support offensive operations, smoke generators remain mounted on vehicles.

Smoke use will support any type of defensive operation. In the defense, use smoke to support maneuver by concealing, disengaging, and moving forces; by isolating and attacking echelons; and by concealing engineer operations. Use smoke to provide additional firepower by disrupting enemy command and control and forcing the enemy to mass, thereby creating the lucrative target. As in offensive operations, the main focus of smoke operations is to defeat enemy target acquisition and reconnaissance and to conceal maneuver forces.

Use smoke to deceive the enemy regarding intentions of friendly forces. Deception operations can make valuable use of smoke assets by making the enemy commit forces to the deception and not to the main attack. The key to a successful smoke deception is to make the enemy

believe the smoke support is for the main effort.

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## **SECTION IX. AIR DEFENSE SUPPORT**

### **ORGANIZATION**

The air defense CS for a brigade is provided using a combination of BSFVs, Avengers, and HMMWV-mounted Stinger crews. The brigades mission and the division commanders air defense priorities are used by air defense battalion commanders to determine the air defense allocation for a brigade. Early warning is provided by the air defense sensors and the division early warning net.

Allocation of ADA assets within the brigade depends on the brigades mission. Based on the brigade commanders intent, scheme of maneuver, air IPB, and air defense priorities, the ADA commander may recommend retaining all assets under brigade control or allocating assets to subordinate units.

The air defense battalion organic to an armored division consists of a headquarters and HHB, three BSFV batteries, and one Avenger battery. Total equipment in the battalion consists of 24 BSFVs, 6 BFVs, 40 HMMWV-mounted MANPAD teams, 24 Avenger fire units, and 6 ground-based sensors.

A BSFV battery's organic equipment is 2 platoon leader BFVs, 8 BSFVs, and 10 HMMWV-mounted Stinger crews (see Figure 7-4).

An Avenger battery consists of 6 platoons of 4 fire units for a total of 24 fire units.

### **DUTIES OF KEY AIR DEFENSE PERSONNEL**

#### **Senior Air Defense Officer**

The units senior ADO is a special staff officer during the planning process. Based on the maneuver commanders intent, scheme of maneuver, and air IPB, he develops air defense priorities. The maneuver commander must then approve these priorities before task organizing air defense assets. The brigade must provide the ADO with the following information.

The S2 provides information on the ground and air threat and the units PIR. The S3 provides the unit OPORD or OPLAN and TSOP. This includes overlays; preplanned locations; commanders intent and concept of operation and follow-on operations; commanders priorities; what units expect heavy ground and air action; what assets are most critical, most vulnerable, and easiest to recover or replace; special or modified brevity or operations codes, key words, or emergency procedures; points the supported unit commander wants covered in daily briefs; SOI; resupply; the supported units MOPP level; and how changes are disseminated.

The S4 provides the following resupply information: Class I pickup points, times, and feeding cycles; Class II resupply of NBC suits, gear, and batteries; Class III refueling locations and times; Class V arrangements for supply of specialized ammunition; Class IX procedures for

ordering and receiving parts and locations and times for pickup. He also determines how resupply is handled and if the air defense unit has been considered in the planning; who maintains air defense unit's non-system-peculiar equipment; and where they are located.

### **Air Defense Artillery Battery Commander**

The ADA commander has two roles: commander of ADA forces and brigade air defense coordinator. He recommends active, passive, and other combined arms air defense measures in the air defense estimate. After approval and staff coordination, he develops the air defense annex to the maneuver plan. He coordinates with ADA elements at higher and lower echelons and with adjacent units. He recommends to the ground commander use of other combat arms for air defense based on careful target value analysis (TVA) and estimate of the air threat. He is also the early warning link to brigade. He can thus monitor the early warning net and relay information to the brigade main CP officer. This information can be passed to maneuver forces over the command or operations and intelligence net (see Figure 7-5).

### **Air Defense Fire Coordination Team**

Each brigade has an air defense fire coordination team consisting of a staff sergeant, sergeant, and driver in an M577 vehicle. Their job is to provide the staff with planning input for air defense employment and tactics, advice on passive air defense measures, and guidance on use of combined arms for air defense. In addition, they provide ADA unit dispositions and missions, changes in established rules of engagement, and near real-time information on air battle intelligence.

## **EMPLOYMENT OF AIR DEFENSE**

When determining the allocation of air defense assets, the air defense commander considers the factors of METT-T, criticality, vulnerability, recuperability, and threats and weighs them against the list of air defense priorities. He then develops an initial allocation to protect these priorities. The advice the air defense commander gives to the maneuver commander can make the difference between adequate and inadequate air defense protection.

If early warning sensors are attached to the battery, the battery commander coordinates with the brigade S3 and emplaces them along high-speed air avenues of approach in the brigade. This is done IAW the air defenses battalion sensor plan. During offensive operations, the battery commander will possibly receive up to two sensors to be employed in the brigade zone. Early warning sensors in defensive operations are not normally assigned a DS mission in a brigade, but are assigned a GS role to support the divisions defense operation.

### **Active Air Defense**

Active air defense is direct action taken to destroy enemy air platforms or reduce their effectiveness. A large volume of fire from small arms (M16, M60, and caliber .50) can destroy attacking aircraft or disrupt their attack. Tank main guns and Bradley 25-mm guns may also be used to engage attacking aircraft effectively. The M830A1 multipurpose AT round is the most effective round to use when



engaging enemy aircraft with a tank. This round has a switch to change it from a ground role to an air role. A proximity switch senses an air target and detonates near the target. General rules for engaging aircraft are found in FM 44-64. Units must also train to take advantage of the terrain to reduce their likelihood of being attacked by air.

## **Passive Air Defense**

Passive air defense measures include all measures other than active taken to reduce the effectiveness of air attack. There are two types of passive air defense measures: cover and concealment and damage limiting measures. Use cover and concealment to avoid being detected by the enemy. Damage limiting measures are those actions you take to avoid damage from air attack such as dispersion and protective construction.

To successfully counter the air assault, you need a well-synchronized combined arms plan that is based on understanding the threat's air assault doctrine. There are four steps in counterair assault planning. First, understand the threat's air assault doctrine. Determining the threat's capabilities, objectives, time, size, and depth provides a framework for understanding air assault doctrine. Second, identify the likely air assault objectives. An objective may be outside your sector, but the air route and landing zone (LZ) could be within it, or vice versa. Third, identify air avenues of approach and potential LZs. Work backwards from the objective to determine the most likely air avenues of approach, and several potential LZs. Fourth, have a combined arms plan that addresses battle command, observation, and fires. The plan should include actions to destroy the air assault during air movement, during the assembly movement at the LZ, and during actions on the objective.

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## **SECTION X. INTELLIGENCE AND ELECTRONIC WARFARE SUPPORT**

EW is an essential component in winning the information battle. EW helps the commander seize and maintain the initiative by providing real time knowledge of the enemys intent, disposition, and readiness. EW defends friendly information systems by degrading or neutralizing the effects of enemy EW activity. EW denies the enemy effective use of his information systems by degrading or destroying his communication and targeting systems.

EW includes three major components: EW support, electronic attack, and electronic protection. EW is integrated into unit operations regardless of the type of unit, level of war, or the scope of the mission. It complements other destructive systems in the context of overall strategy. When EW is synchronized into lethal fires, the friendly commander gains agility by slowing the reaction time of his adversary.

The division MI battalion directly supports the commander and G2 by providing dedicated multidiscipline battlefield intelligence and EW support to the division and its subordinate maneuver brigades. At this echelon the focus is on the intelligence products and services needed by commanders to plan, fight, and win battles at the tactical level. In addition to the organic intelligence support provided by the MI battalion, the brigade will receive a DS

company from the MI battalion.

The brigade S2 is the commanders focal point for intelligence. He assists the brigade commander in identifying intelligence requirements that support the brigade mission. He also provides information to the commander for making tactical decisions by fully employing brigade IEW assets as part of the intelligence BOS. Through the S3, he directs the activity of the DS company. The DS company provides multidiscipline intelligence support to the brigade commander.

The MI battalion commander attempts to establish and maintain a habitual relationship between the brigade and designated DS company. DS MI company capabilities include:

- Automated multidiscipline intelligence and combat information processing.
- Analytical control team (ACT).
- UAV control.
- Interrogation of prisoners of war (IPW) and limited document exploitation.
- Counterintelligence support.
- Command and control of organic and reinforcing IEW assets.
- JSTARS coverage and product dissemination.

The separate brigade S2s responsibilities are broader than those of the divisional brigade S2 and can be more reasonably compared to the responsibilities of the division G2. Although the unit is smaller and the mission more limited, the separate brigade S2 performs all functions performed at the division level.

The separate MI company mission focuses on developing, assessing, and disseminating the combat information and intelligence required by the combat commander to accomplish his mission. GS MI company capabilities include:

- Integrated collection management, technical control, ASAS and reporting.
- Automated multidiscipline intelligence and combat information processing, display, and dissemination.
- IPW and limited counter-intelligence support.
- Ground-based signals IEW.
- UAV close-range launch, collection, recovery, maintenance and control.
- Intelligence special purpose communications.
- JSTARS coverage and product dissemination.

The separate MI company's structure includes the following:

- Company headquarters.
- Three collecting and jamming (C&J) platoons.
- Commo section.
- IEW platoon.

The separate brigade may receive reinforcing IEW assets from within the corps or from

echelons above corps.

## **ANALYTICAL CONTROL TEAM**

The analytical control team (ACT) expands the mission, functions, and resources formerly found in the IEW support element (IEWSE) and MI company team. The ACT is organic to the direct support MI company and normally collocates with the company command post. Unlike the ACE at higher echelons, the ACT is not under OPCON of the brigade S2. Under the direction of the DS MI company commander, the team provides the brigade S2 with automated intelligence processing, analysis, and dissemination capabilities. In addition, the MI commander uses the ACT to support intelligence collection and reporting of subordinate elements. The ACT uses its all source analysis system (ASAS) work station to access databases, reports, graphics, and other products at higher echelon organizations, primarily the divisions ACE.

## **COUNTERINTELLIGENCE SUPPORT**

The counterintelligence team provides counterintelligence support to the division to protect its operations from the intelligence threat, and from subversion, sabotage, and terrorism. The counterintelligence teams of the MI battalion are normally deployed in the brigade and division rear areas. With corps augmentation, the counter-intelligence team or teams may be placed in DS or even attached to the brigade to perform specific counterintelligence missions for a specific period of time.

Interrogation teams usually operate from the divisions EPW collection point. As with the counterintelligence teams, given corps augmentation, interrogation teams can be in DS or attached to the brigade for specific missions. Although not usually a timely source of information, interrogation reports can provide the brigade commander with answers to PIR that may not otherwise be collected through electronic or visual means.

## **GROUND SURVEILLANCE RADAR**

GSR teams normally are attached to the maneuver brigade to provide a 24-hour battlefield surveillance capability. They may be employed on patrols or at OPs and are equipped with NODs. They can also be used with thermal sights on various weapon systems to give gunners assistance in target acquisition. They can be employed near the FLOT, forward of the FLOT, or be used on the flanks in a screening role. They can be used to surveil gaps between units or to observe rear areas at possible drop zones (DZ) or LZs.

Normally, the teams provided to the brigade are attached to subordinate battalions. The brigade may retain control of some of the GSR assets to give the S2 more direct access to the collected information in the rear areas.

Detailed information on all MI assets operating in the brigade area may be found in FM 34-80.

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## SECTION XI. MILITARY POLICE SUPPORT

### MILITARY POLICE BATTLEFIELD MISSIONS

MP operations play a significant role in assisting the brigade commander to meet the challenges associated with combat. MPs provide support through their four primary battlefield missions.

#### Battlefield Circulation Control

MPs support the maneuver and mobility functions by expediting forward and lateral movement of combat resources. The use of MPs in the battlefield circulation control (BCC) role might include:

- Route R&S. This would include continually monitoring the condition of MSRs; identifying restricting terrain, effects of weather on routes, damage to routes, NBC contamination, and the presence of the enemy; and identifying alternate MSRs, when required. MPs should report all observations, maintain surveillance, and develop the enemy situation.
- MSR regulation enforcement and security. This would include enforcing the commands highway regulation and traffic circulation plans to keep MSRs free for resupply operations. To expedite traffic on MSRs, use the following measures: traffic control points (TCP), roadblocks, checkpoints, holding areas, defiles at critical points, and temporary route signs. MPs should also gather information on friendly and enemy activity by use of mobile teams.
- Refugee and straggler control. Refugee control operations are the responsibility of G5/S5 and/or host nation authorities. MPs should assist, direct, or deny the movement of civilians whose location, direction of movement, or actions may hinder operations. In the area of straggler control, MPs performing their BCC mission would return stragglers to military control. Mobile patrols, TCP, and checkpoint teams do this as part of their day-to-day operation, and traffic control.
- Police intelligence collecting and reporting. In carrying out their support of the brigades maneuver and mobility, MPs collect police intelligence (both tactical and criminal) on a continual basis. While conducting area reconnaissance, MSR regulation enforcement, and security operations, MPs routinely interface with soldiers, local police, and the indigenous population as well as gather information on the terrain, weather, and activities in the brigade AO. MPs represent a HUMINT source that should be integrated into the brigades overall intelligence collection effort.
- Information dissemination. MPs provide information to soldiers, units, and other road users in the course of all MP missions. MPs inform personnel moving through their AO of recent enemy activity there. They provide directions. They also give locations of supply points and medical facilities. MPs also provide information about MSRs, critical points, contaminated areas, and holding areas, as well as the general location of major units.

#### Security

MPs assist the commander in addressing security and force protection in the rear area by

conducting security operations that may include:

- Area security. This mission would assist in gaining information to guard against unexpected enemy attacks in the rear area. MPs monitor likely avenues of approach and LZs or DZs to give early warning of rear area enemy activity. They provide coverage of NAIs within the brigades rear area. MPs also have the capability to recon routes and bridges and provide detailed overlays.
- Security of designated critical assets. This might include security of key personnel and facilities. This could be done by operating a mobile screen. This standoff protection detects and defends against the threat before it can move within direct fire range of facilities. MPs may provide protective services to key personnel visiting the brigade area. This may be accomplished by using access control measures in the CP, by providing close-in personal security, or by using around the clock static and in-transit security measures. MPs may provide convoy security for units transporting critical supplies to tactical forces.
- Base response force operations. MPs help apprise the commander of enemy activity in the rear. MPs are trained to defeat threat levels I and II as well as to delay a level III threat and hand over that battle to a tactical combat force (TCF).
- Area damage control. MP units take measures to support area damage control before, during, and after hostile actions or natural and man-made disasters. MPs provide support that includes, but is not limited to, BCC, refugee control, straggler control, NBC detecting and reporting, and some local physical security when required.
- NBC detecting and reporting. MPs have the capability to detect, monitor, and report the presence of NBC hazards. They do this in the course of performing any of their MP missions.

## Enemy Prisoners of War Operations

MPs support tactical commanders by undertaking EPW operations. They relieve the tactical commander of the need to use his combat forces to do this. MPs in DS of brigade units and those assigned to separate brigades establish an EPW collection point (normally in the BSA). EPW operations include

- EPW collection operations. MPs collect EPWs and civilian internees from combat units and from other MP units in an AO. MPs make these collections as far forward as possible.
- EPW evacuation operations. MPs ensure that EPWs are evacuated from collecting points and holding areas as soon as possible.

## Law and Order Operations

MPs conduct these operations when necessary to extend the combat commanders discipline and control. This would include law enforcement and criminal investigations. Close coordination with host-nation civilian police can enhance combating terrorism (anti-terrorism and counterterrorism measures), law and order, and control of civilian populations. Any one of the above missions can easily require an entire MP platoon and more; therefore, it is important that



the factors of METT-T be considered when using the provided MP support. It is best to keep MPs mobile, acting as the eyes and ears of the commander. During offensive operations, MPs best support the brigades maneuver and mobility by facilitating route movement and refugee/straggler/EPW evacuation and control, and by controlling road traffic. In the defense, MPs are best employed in the area security role to enhance the brigades maneuver and mobility. It is important that MP resources be synchronized and weighted in support of the brigades main effort just as any other asset. This will help maximize MP resources allocated to the brigade.

The corps MP brigade normally provides an additional MP company to augment each division. Dependent upon METT-T, this support may not be provided down to brigade level. Likewise, dependent upon METT-T, the brigade could receive support ranging from squad size up to platoon or company size (from the corps MP company). Regardless of the size of MP support provided, their employment should maximize their capabilities to operate as dispersed, but connected (by communications), teams and/or massed elements as dictated by METT-T or OCOKA.

Figure 7-6 shows the structure of an armored division MP platoon from which the divisional brigade receives support.

Commanders must realize that MP support may not be available or adequate to perform all necessary MP battlefield missions simultaneously. Commanders must therefore prioritize those missions and designate other soldiers within the brigade to assist in their execution. These MP missions may include:

- Route reconnaissance, selection of routes/alternate routes, convoy escort, and security of LOCs.
- Control of roads, waterways, railroad terminals, or other critical choke points in MSRs.
- Security of critical sites within the brigade AO.
- Refugee control in close cooperation with host-nation civil authorities.
- Collection and escort of EPW.

## **UTILIZATION OF THE MILITARY POLICE PLATOON WITHIN THE BRIGADE**

The MP platoon providing DS to the maneuver brigade has an AO coinciding with the brigades boundaries. The platoon headquarters locates within the BSA. To accomplish its missions, a DS platoon must have at least three squads. One squad operates the EPW collecting point. The two remaining squads provide BCC and area security within the brigade rear.

Platoon assets performing EPW operations locate in the BSA. The remainder of the platoon is dispersed throughout the brigade rear. The DS platoon conducts BCC and area security within its resources. They also receive and hold EPWs for evacuation to the division rear.

The MP platoon might also be utilized to support river crossings or passages of lines. Detailed information on MP supporting these missions can be found in FM 19-4.

## **EMPLOYMENT OF THE MILITARY POLICE PLATOON IN A SEPARATE BRIGADE**

The MP platoon supporting a separate brigade can perform any of the four MP battlefield missions. However, its resources are quite limited.

Support to the platoon and to the provost marshal section is provided by the brigade HHC. The platoon must compete with other brigade HHC assets for priority of repair for weapons, vehicles, and communications equipment.

## **Organization**

The provost marshal has a small section that operates out of the brigade main CP. The section is not organized for split-cell operation. Corps augmentation is not provided on a routine basis and must be requested.

A separate provost marshal cell within the brigade HHC serves as the command and control element for the platoon.

The MP platoon supporting a separate brigade has four squads instead of the three found in the division platoon. One squad operates the EPW collecting point while another provides security at the brigades main CP. The remaining two squads conduct BCC and control and area security operations throughout the brigades rear area. Figure 7-7 shows the structure of an MP platoon for a separate brigade.

## **Command and Control**

The command and control of MP units supporting separate brigades extends downward from the tactical commander. The separate brigade provost marshal has OPCON of separate brigade MP assets the way the division provost marshal has OPCON of division MP assets. The brigade provost marshal also has OPCON of any MP assets that are provided from corps. The platoon leader directs the execution of his platoon's missions.

## **Staff Relationships**

The provost marshal advises the commander of a separate brigade on matters pertaining to MP operations.

## **Support Relationships**

The support relationships of MP units supporting separate brigades differ with the type of brigade to which the platoon is assigned. In an armored separate brigade, the MP platoon employs all of its squads to provide GS to the entire brigade AO. Thus the support relationship of an MP platoon supporting an armored separate brigade and that of an MP company supporting a light infantry division are the same. The number of squads employed vary with the brigade's size and the needs of the brigade's missions. However, establishing the support relationship (DS or GS) of MP assets assigned in support of the brigade remains within the purview of the brigade commander.

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## SECTION XII. SIGNAL SUPPORT

Signal support to the divisional brigade is provided by a communications team from the division signal battalion. The small extension node (SEN) team provides MSE service for telephone and packet switch access. Telephones, terminals (DNVT/DSVT), facsimiles, and automated terminals/systems are brought and hooked up by the unit. The unit SO has supervisory responsibility over the team and incorporates them into the units planning process. Normal signal relationships are in effect per FM 24-1. Restoration of lost or down communications is everyone's responsibility until communications are restored.

The division signal battalion is tasked with providing a communications grid to ensure area coverage for MSE communications. The brigade S3, BSO, and divisional signal unit must work together during the planning phase of the operation to ensure communications are effective. As the digitized battlefield evolves and digital information transfer becomes more prevalent, the planning of communications becomes even more critical.

The packet switch capability that the signal battalion and the supporting SEN team provides is critical to hooking the brigades automated systems into the packet switching network. The network is a large mobile local area network (LAN). When hooked to the network via coaxial cable, the unit is capable of conducting large data transfer actions in seconds that a few years ago took hours in the tactical environment. Packet switch is also referred to as the tactical packet network (TPN) that overrides MSE.

Brigade external communications may consist of the following:

- Area common user (ACU) network. ACU is composed of MSE and possibly some multichannel tactical satellite (TACSAT) assets. The network carries both voice and packet (TPN) data. The network may span several continents or be very small.
- TACSAT. TACSAT communications network has both single channel and multichannel and may be employed separate from the MSE network.
- Divisional or task force FM and AM voice nets.
- Commercial telephones, leased lines, host-nation communications, portable phones, car phones, pagers, beepers, and commercial hand-held radios may possibly be used depending on the threat during an operation.

Brigade internal communications consist of the following:

- ACUs, MSEs, and TPNs.
  - Circuit switched.
  - Packet switched-
    - \* ATCCS devices on TPN.
    - \* User owned automation devices.
- Combat net radio (CNR).
  - FM radio (single channel ground and airborne subsystem [SINCGARS]).
  - Single channel TACSAT.
  - AM radio, IHFR.

- Automated systems in brigade hooked to MSE/TPN network.

## **BRIGADE SIGNAL SECTION**

The organic signal section of the brigade HHC provides the following communications services to the brigade CPs (see FM 11-43):

- Network management for all systems in the brigade exchanging digital information.
- Frequency and spectrum management for all systems in the brigade AO.
- Limited FM radio maintenance.
- FM radio range extension capability.
- Evacuation of COMSEC material.
- Communications training and training facilitators.

## **SIGNAL PLANNING**

The BSO is responsible for many aspects of communications planning to support the brigades operations. The two most important areas of communications planning for the brigade are ACU and CNR.

The key to successful ACU support is keeping the supporting signal battalion in the planning loop on what the brigade communications requirements (include slice) are for each mission and include any special requirements during each phase of an operation. When and where service is required must be planned, coordinated, and then synchronized with all of the other BOSs in the brigade AO.

CNR is just as important as ACU in planning. With a new generation of radios (SINCGARS) and the capability to conduct frequency hopping operations, a number of variables must be met for successful operations. Frequency hopping communications must be planned and practiced/rehearsed prior to execution to ensure success.

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# FM 71-3

## The Armored and Mechanized Infantry Brigade

### CHAPTER 8

### COMBAT SERVICE SUPPORT

The application of superior combat power at the decisive time and place determines the outcome of the battle. The brigade commander uses his CSS assets to enhance the abilities of his maneuver battalions and to weight the main effort within the brigade. The effects of CSS assets in support of the maneuver plan are increased by integrating CSS in the maneuver plan from the beginning of the planning process or COA development. This prevents CSS assets from becoming additives attached to a completed plan. This allows the CSS to act as true combat multipliers. Based on guidance and changing priorities, the brigade requests additional assets from division when necessary, and coordinates and integrates CSS assets. The CSS assets provide support to the brigade according to standard command and support relationships.

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#### SECTION I. COMMAND AND SUPPORT RELATIONSHIPS

Specific applications of the command and support relationships are in the discussion of CSS elements throughout this chapter. Table 8-1 illustrates the relationship between the brigade and CSS elements.

The leader of a CSS element that is attached, OPCON, or DS to the brigade also serves as a special staff officer to the brigade commander.

During planning, preparation, and execution of the brigade mission, the CSS element leader



provides assistance, advice, and recommendations on employment of his unit to the brigade commander and staff. He employs his unit as directed by the brigade commander.

Table 8-1. Brigade command and support relationships.

UNIT	ATTACHED	OPCON	DS	GS
Under Command/Control of...	Brigade Cdr	Brigade Cdr	Parent Unit	Parent Unit
Task Organized by...	Brigade Unit	Brigade Cdr****	Parent Unit	Parent Unit
Receives Mission, Tasks, and Priorities from...	Brigade Unit	Brigade Unit	Brigade Unit	Parent Unit
Positioned by...	Brigade Unit	Brigade Unit*	Parent Unit*	Parent Unit
Maintains Communications and Liaison with...	Brigade Unit	Brigade and Parent Unit	Brigade and Parent Unit	Parent Unit
Receives CSS from...	Brigade Unit***	Parent Unit**	Parent Unit**	Parent Unit
*With specific approval of the brigade commander if within the brigade AOs. (Any unit in the brigade area requires positioning approval.) **The CSS requirements beyond the ability of the parent unit area provided by the brigade after a specific request for coordination between the parent unit and brigade headquarters has been made. ***Attached element brings an appropriate slice of CSS equipment and personnel to supplement the brigades assets. ****In NATO, OPCON does not include authority to assign separate employment of components of the units concerned.				

Table 8-1. Brigade command and support relationships.

## SECTION II. COMBAT SERVICE SUPPORT OVERVIEW

### TACTICAL LOGISTICAL FUNCTIONS

The functional areas of CSS cover six major areas: manning, arming, fueling, fixing, moving, and sustaining soldiers and their systems (PSS, HSS, field service support, and quality of life).

### LOGISTICS CHARACTERISTICS

The brigade must be armed, fixed, fueled, manned, moved and its soldiers sustained to allow the brigade commander to take advantage of opportunities to achieve tactical advantage. This requires the S4/S1 and the FSB commander to incorporate the logistical characteristics in every action taken. The five logistical characteristics of anticipation, integration, continuity, responsiveness, and improvisation enable tactical success.

#### Anticipation

CSS leaders and staffs must anticipate CSS requirements. They do this by understanding the commanders intent and translating current developments into future requirements. The main purpose of anticipation is to help the brigade commander form a supportable plan. The FSB commander, brigade S1, and brigade S4 develop a close relationship between staffs. The FSB commander or his designated representative attends brigade staff meetings. He monitors the brigade command net to anticipate required changes to the FSB organization, employment, and operations.

#### Integration

A close relationship between the brigade staff and FSB support operations is required to

ensure sustainment operations are integrated with operations of the maneuver force. The brigade commander and staff plan tactical and CSS operations concurrently. The FSB commander and staff provide the required input to the brigade planning process to ensure the scheme of maneuver and FS plan are supported logistically.

## **Continuity**

The brigade commander requires continuous support to retain the initiative and to ensure that the depth of the operations is not inhibited by breaks in support. This represents a considerable challenge for the FSB and other CSS elements in the brigade area. It requires CSS assets to provide continuous support while frequently relocating.

## **Responsiveness**

The CSS system must also be responsive. It must meet needs that change with little notice in environments of war and OOTW (conflicts). The brigade staff and FSB support operations must assume changes in priorities, support operations, and brigade task organizations. CSS assets must respond quickly and provide continuous support in joint and combined operations.

## **Improvisation**

Sustainers must be prepared to improvise. The fluid nature of Army operations may quickly render routine support methods obsolete. Leaders and staffs must not interpret a guideline or technique as an absolute requirement. If it is not effective in maintaining maximum combat power and momentum, the brigade staff and FSB support operations personnel must not be afraid to discard it. Sustainers must be innovative.

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# **SECTION III. BRIGADE COMBAT SERVICE SUPPORT SYSTEM**

## **GENERAL**

A divisional brigade does not have any organic CSS units. Subordinate maneuver units have limited CSS elements within their headquarters companies. CSS is provided to the divisional brigade by the DISCOM and the corps support command (COSCOM). Normally, the majority of the brigade's logistical support is provided by the FSB. Separate brigades have an organic support battalion to provide most of their required CSS. A separate brigade support battalion is similar in organization and function to a divisional FSB.

## **BRIGADE COMBAT SERVICE SUPPORT**

The brigade commander plans his tactical and CSS operations concurrently. He ensures that his scheme of maneuver and FS plan are logistically supportable. If CSS planners identify constraints, the commander evaluates the risks and, if necessary, establishes new priorities or modifies his tactical plan to eliminate or reduce their effect. The personal involvement and on-the-scene appraisal of the situation by CSS personnel is as important to mission accomplishment as is personal involvement by combat leaders. CSS planners must

- Understand the commander's intent and priorities.
- Track/monitor the battle.
- Anticipate requirements and use initiative to meet them.
- Pre-position supplies and equipment.
- Push support forward.
- Seek windows of logistics opportunity.
- Use established routines during lulls in battle to rearm, refuel, and repair.
- Detect, fix, and destroy rear area threats within capabilities.

The key CSS personnel organic to the brigade staff are the brigade XO, S1, and S4. The FSB commander is in a DS relationship to the brigade commander. The FSB commander marshals and synchronizes the CSS assets required to support the brigade's tactical plan. While the FSB supports the ground maneuver brigade, they remain under the command of the DISCOM commander. The FSB normally positions the battalion units within the BSA in accordance with the brigade's tactical plan. The displacement of the BSA must be carefully coordinated with the tactical scheme of maneuver, location of the division support area (DSA) and MSRs, priorities of support, and time available for displacement.

Key duties and responsibilities of brigade logisticians are as follows:

- Brigade XO coordinates the CSS effort of the brigade. He ensures that the brigade S1 and S4 have the CSS plan fully developed. He also coordinates with the FSB commander to ensure that the FSB can support the brigade during the operation. The brigade XO-
  - Directs the staff from the brigade main CP.
  - Ensures continuous CSS in the brigade.
  - Keeps the brigade commander informed on logistical issues.
  - -Is assisted by-
    - S4.
    - S1.
    - HHC commander.
    - Brigade surgeon.
    - FSB support operations element.
- The brigade S4 is responsible for -
  - Operating the brigade rear CP (if tasked).
  - Coordinating support with the FSB commander.
  - Coordinating with the battalion task force S4s.
  - Coordinating support for attachments.
  - Keeping the brigade commander informed of logistics situation.
  - Maintaining supply status.
  - Planning and coordinating -
    - Maintenance.

- Transportation.
- Administrative moves.
- Services.
- Supplies.
- Determining requirements for civilian labor.
- Recommending MSR.
- Preparing logistical plans, orders, overlays and estimates.
- The brigade S1 is responsible for -
  - Preparing personnel estimates.
  - Coordinating PSS.
  - Monitoring unit strength, estimating losses, and reporting casualties.
  - Determining individual replacement requirements.
  - Evaluating and enhancing morale.
  - Coordinating -
    - Health services plan.
    - Religious services.
    - Legal services.
    - Postal services.
    - Finance services.
    - Public affairs services.
    - Law, order, and discipline.
    - Morale support activities.
  - Planning and supervising use of civilian labor.
  - Planning and supervising A/L support and guarding and evacuating EPWs.
  - Operating the brigade rear CP.
- The FSB commander is responsible for -
  - Providing security and terrain management in the BSA.
  - Providing support to corps units operating in the brigade area (requires prior coordination between the parent corps units, the brigade HQ, and the DISCOM).
  - Advising the brigade commander on FSB support capabilities as required.

## BRIGADE SUPPORT AREA

The BSA is the logistical, personnel, and administrative hub of the maneuver brigade. It normally consists of the brigade rear CP, the FSB, maneuver battalions and DS artillery and engineer battalion field trains, MP platoon assets, DS ADA battery, signal battalion elements, and service support augmentees from the DISCOM and COSCOM. Figure 8-1 depicts a possible layout of the BSA.

The general location of the BSA is determined by the brigade S3 in consonance with the brigade S4 and the FSB commander. The BSA should be located so as not to interfere with the tactical movement of the brigade units, or units that must pass through the brigade area, while still maintaining the support of the battle. A good BSA location includes the following characteristics:

- Convenient to units served.
- Situated away from the main enemy avenue of approach.
- Beyond the range of threat cannon artillery (20 to 25 km for offense, 25 to 30 km for defense).
- Sufficient space to allow dispersion of facilities.
- Concealment from hostile ground and air observation.
- Firm ground for support of all vehicular traffic.
- Situated to avoid major obstacles or canalizing terrain.
- Located near a water source.
- Suitable helicopter landing site.
- Access to a good road network to support extensive vehicle traffic.
- Situated in built-up areas to harden CPs, improve work areas, and lessen visual and infrared signature.
- Located to enhance defensive capabilities.

The lifelines that connect the BSA and the supported units within the brigade are the brigade supply routes. Supply routes are selected by the S4 in coordination with the S3 based upon the tactical plan. MPs regulate traffic using the supply route, and engineer units, if available, ensure it is in a high state of repair to speed delivery of needed supplies and personnel to forward units.

## MAIN SUPPLY ROUTE

The brigade MSR is selected based primarily on the tactical situation and the brigade commanders scheme of maneuver.

The MSR must be well marked. It must also be included on the CSS overlay and have a sufficient number of traffic control points. Some route considerations are:

- Is the route capable of handling the heaviest vehicle in the brigade?
- What is the estimated number of refugees using the route?
- Is it capable of sustained bidirectional traffic?
- What are its vulnerabilities, such as bridges that can be destroyed?
- Are there any choke/congestion points, such as towns and confusing intersections?
- How many cross-over routes are possible from the MSR to the alternate supply route?
- What is the primary threat to the MSR?
- What is the enemy air threat?



- Are there partisan activity or refugee movement conflicts?
- Where does brigade responsibility end and battalion task force begin?
- Who is responsible to defend the brigade portion?
- Are there vulnerable places that must be continuously guarded?
- Will the enemy use persistent chemical agents on the route?

The alternate supply route must meet the same considerations as the MSR. It may be identified as the "dirty" route for contaminated casualties.

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## **SECTION IV. FORWARD SUPPORT BATTALION**

### **GENERAL**

The FSB commander is the brigade commander's chief logistician in the brigade area. Each FSB provides DS level logistical support for a specific maneuver brigade, units that are DS to the brigade, and selected corps units on an area support basis. It is organized with a headquarters and headquarters detachment (HHD), a supply company, a maintenance company with designated system support teams (which can be task organized into maintenance support teams [MST]), and a medical company (see Figure 8-2). FM 63-20 has a detailed layout of the FSB and its capabilities.

The FSB provides dedicated support to the same brigade on a habitual basis both in garrison and in tactical operations. The FSB's primary role is to provide DS to the brigade and division units operating in the brigade area. This role entails a dual requirement. First, the FSB must plan to support future operations. It must anticipate requirements and in-include planning guidance. In addition, the FSB must support current operations and monitor the implementation of the support plan. The FSB is also responsible for base cluster defense of the BSA and operates under the brigade command for this mission. See FM 63-20, Chapter 5, for a detailed discussion of BSA security and terrain management operations.

The two most important concepts in supporting the armored brigade are forward support and area support.

### **Forward Support**

As the name of the FSB implies, the focus of the CSS structure is on providing support as far forward as practical. Supplies, weapon systems, and repair assets for easily repairable equipment should be provided by the corps, main support battalion, and FSB to the field trains or beyond whenever practical. Also, the FSB ensures damaged equipment not easily repairable is evacuated from as far forward as practical. Health service support (HSS) should also be focused on forward support.

### **Area Support**

Because of the ever changing combination of division units operating in the brigade area, it

would be almost impossible and certainly inefficient to dedicate CSS units to support strictly structured units. The DISCOM commander has to cross-level assets when substantial changes are made in the size and types of units supported by an FSB. However, sufficient flexibility has been put in the FSB to accommodate minor variations in supported units and still provide DS level logistics to all division and (with required augmentation) supporting corps units operating in the brigade area.

## **MAINTENANCE OPERATIONS**

The overriding goal in FSB maintenance operations is to provide forward support to return combat systems to the battle as soon as possible. Repairing systems forward reduces transportation requirements and time. It maximizes the availability of equipment to the user. The FSB maintenance company has been given the capability to perform the mission operations well forward (see Figure 8-3 for maintenance company organization). Whenever possible, equipment is repaired on site. However, this is not always possible and practical. The tactical situation, extent of damage, or availability of people, parts, or tools may make recovery or evacuation more desirable.

Tailored tank or infantry MSTs normally operate forward to support subordinate armored or mechanized infantry battalion task forces. They provide on-site expertise on combat vehicles and are usually located at the battalion UMCP. The MST performs DS maintenance for automotive, turret, fire control, small arms, power generation, and communication equipment. Reinforcing support for these teams is provided by base shop maintenance sections of the maintenance company.

DS maintenance for CSS units supporting the brigade is provided by the maintenance company from the BSA. Augmentation from the main support battalion enables the FSB to service all brigade "divisional slice" assets to include missile and EW assets.

## **MEDICAL OPERATIONS**

The forward support medical company plays a vital role in the manning task by providing division- and unit-level health service support to all units operating in the supported brigades area on an area support basis. As shown in Figure 8-4, the company consists of a company headquarters, treatment platoon, and an ambulance platoon.

The company performs the following functions:

- Treatment of patients with minor diseases and illnesses, triage of mass casualties, initial resuscitation and stabilization, advanced trauma management, and preparation for further evacuation of patients incapable of returning to duty.
- Ground evacuation of patients from battalion aid stations and designated collection points.
- Emergency dental care.
- Emergency medical resupply to units in the brigade area.
- Medical laboratory and radiology services commensurate with division level treatment.
- Outpatient consultation services for patients from unit level medical treatment facilities.

- Patient holding for up to 40 patients able to return to duty within 72 hours.
- Coordination with the UMT for required religious support.

The treatment element of the medical company operates from mobile medical treatment facilities. These mobile medical treatment facilities feature built-in equipment. They require minimum time, therefore, to become operational. This allows the treatment element to closely follow the maneuver brigades and to provide more responsive support.

The occurrence of mass casualties must be anticipated. Managing these situations will severely tax the entire HSS system. Internal brigade treatment/evacuation plans are reviewed by the brigade surgeon who submits recommendations for action. In such situations, the division, when possible, shifts its treatment and evacuation resources to meet the requirements. When required, additional evacuation resources and treatment elements may be requested from the corps medical brigade/group. The key to managing mass casualties is the use of on-site triage and emergency medical treatment teams. Other important areas include effective communications and skillful employment of evacuation vehicles (air and ground). The rapid buildup of evacuation assets at the mass casualty location eases the problem. Also, the prompt movement of patients to all available medical treatment facilities helps. This movement dissipates the medical workload by distributing casualties equitably among the medical treatment facilities. This is done based on the patient's condition and on the medical treatment facility's capabilities.

## **SUPPLY OPERATIONS**

The supply company supports the arming system through its Class V operations, the fueling system through Class III operations, and the manning task through provision of rations, clothing, and individual equipment. Specifically, the company provides receipt, storage, and issue of Classes I, II, III, IV, and VII items. It also conducts Class V transloading operations at its ATP and operates a salvage point. The company consists of a company headquarters and a supply platoon and is organized as shown in Figure 8-5.

The company performs the following functions:

- Receive and issue Classes I, II, packaged III, IV (limited), and VII supplies as well as unclassified maps. It also provides limited storage for these items. Authorized stockage list stocks are stored by the main support battalion supply and service company. The company does not receive, store, or issue classified maps, aircraft, airdrop equipment, communications security, or construction materiel.
- Receive, store, and issue bulk petroleum using organic fuel transporters.
- Transload Class V supplies from corps transportation assets to unit vehicles.
- Operate a salvage point for all supplies except COSCOM supplies, toxic agents, aircraft, ammunition, explosives, and medical items.
- Provide unit maintenance for organic vehicles and equipment as well as those of the HHD.

The FSB must be 100 percent mobile with organic equipment. To enhance mobility, the quantity and variety of supplies the supply company can have on hand at any given time are

limited. As a result, the supply company has several supply principles available to cut down on the response time between initial request and subsequent issue to the brigade.

## **Push System**

A push system is the initial go-to-war supply system in an undeveloped theater. Preplanned packages of selected supplies are sent forward to replenish expended supplies in anticipation of requirements of supported units. Initial quantities are based on strength data and historical demand. When the theater stabilizes, the supply system becomes a push system to the BSA for critical supplies based on personnel strengths and forecasted requirements. Other supplies are provided through a pull system based on actual demand. Supplies may still be pushed at the battalion and brigade level, especially during high intensity combat operations to heavily engaged units. Such units may be unable to ask for supplies because of gaps in the chain of command or intensive jamming on a fluid battlefield. Supplies may also be pushed to support a deep operation.

## **Throughput Distribution**

Throughput distribution bypasses one or more echelons in the supply system to minimize handling and speed delivery forward. Supplies are often throughput to the FSB from the corps and, in the case of Class IV barrier materials and some Class VII major end items, may be throughput directly to the user in the forward area. When most of the load is for a specific unit, the transporter may deliver directly to the requesting unit .

## **Supply Point and Unit Distribution**

In an effort to tailor supply distribution, the supply company uses a combination of supply point distribution and unit distribution to support the brigade. When supply point distribution is used, unit representatives come to the supply points in the BSA to pick up their supplies. Maneuver battalion task forces with field trains in the BSA have their own organic unit supply, fuel, and ammunition trucks assembled in the field trains along with repaired equipment, personnel replacements, and other assets. There they form a LOGPAC that goes forward to provide support to forward deployed elements. (LOGPAC operations are detailed in FM 71-2) The supply company tries to cut down on the distances the forward units must travel by positioning supplies as far forward as possible. To provide a quick turnaround for forward units, the supply company also staggers the unit pickup times and sets up to provide a smooth traffic flow through the supply areas.

Due to limited transportation assets in the FSB, supply point distribution is normal for most classes of supply. Unit distribution by corps assets is used to deliver barrier materials to emplacement sites. Other classes of supply may be delivered using unit distribution when the tactical situation permits and transportation assets are available. Emergency resupply using unit distribution may be accomplished via motor or air transport.

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## **SECTION V. PERSONNEL SERVICE SUPPORT**

### **GENERAL**

PSS is an important component of CSS. At the brigade level, it encompasses many CSS functions that sustain the combat potential of the force and the morale and welfare of the soldier.

PSS activities are divided into two general categories - combat critical and sustainment. Other functions such as chaplain activities are considered essential and have a significant impact on the welfare of the force. The former category focuses on the function that must be performed regardless of the intensity of combat. The latter category deals with the functions that are temporarily controlled or suspended as combat intensity increases.

Initial PSS planning should focus on the combat critical tasks of personal services and health services. Once the planning for the critical functions is complete, attention is then focused on the other functions of PSS. The sustainment functions are not fixed and will vary depending upon the situation.

### **PERSONNEL SERVICES**

The brigade S1 section serves as a conduit between subordinate units and the G1/AG. Because of distances and communications capabilities, all reports are submitted through the brigade S1 for forwarding to the appropriate agency. Initial personnel data is submitted by subordinate and attached units of the brigade through the Tactical Army Combat Service Support Computer System (TACCS) device using battle rosters and by-name reports. The brigade S1 also provides information to subordinate units on status of evacuated/hospitalized personnel and adjusts personnel requirements accordingly.

### **Strength Accounting**

Strength accounting is the process by which combat readiness (personnel status) is measured. It keeps track of the troops on hand, identifies those that have been lost, and identifies those that are needed.

### **Personnel Losses**

A personnel loss is any reduction in the assigned strength of a unit. Losses are categorized as follows:

- **Battle Losses.** Battle losses are losses incurred in action to include killed in action (KIA), wounded in action (WIA) or injured in action and evacuated from the unit, missing in action (MIA), and captured by the enemy.
- **Nonbattle Losses.** Nonbattle losses are those not directly attributed to being in action, to include nonbattle dead, accident/injury, missing, sickness/disease, and stress.

### **Administrative Losses**



Administrative losses are those due to transfers from the unit, absent without leave (AWOL), desertion, confinement, rotation, and discharges.

## **Casualty Reporting**

The primary personnel accounting function on the battlefield is casualty reporting. On the battlefield, high-volume individual and mass casualties should be expected. Casualty information must be collected, recorded, and reported with 100 percent accuracy as rapidly as the situation permits. The casualty reporting system is a by-name personnel accounting system that begins at unit level with the person who knows that a casualty has occurred. Support casualty feeder and witness statements are forwarded as soon as possible. Reports are forwarded through the brigade S1 section to the division AG personnel accounting section. Patient evacuation and mortality reports and treatment and disposition logs are provided daily to the brigade S1 from the FSB medical company. Information is then provided to subordinate units to update personnel daily summary reports.

## **Replacement Operations**

The brigade S1 is the brigade commander's principal staff officer for individual personnel replacement operations. FM 101-10-1/2 provides estimates for conventional battle and administrative losses. The rate of loss varies with a number of factors such as the theater or operations, climate, terrain, training and conditioning of troops, type of activity, and the enemy. The division AG provides replacement projections to the brigade S1. The S1 can then adjust projected assignments based upon impending tactical operations, brigade commander's priorities, and return to duty status of stragglers and treated casualties.

## **Health Services**

Brigade health services were discussed earlier in this chapter.

## **Sustainment Personnel Services**

The following personnel services are centralized and performed by division AG or corps personnel service company personnel. Whenever possible, procedures are kept informal to ensure responsiveness and to reduce the number of people required to process a given action. All documents must flow quickly to and through given units. Normally, the following services are initiated through subordinate battalion/separate company Personnel and Administrative Centers (PAC) and appropriate forms forwarded through the brigade S1 to G1/AG actions:

- Personnel records maintenance.
- Personnel action.
- Awards.
- Promotions/reductions.
- Classifications/reclassification actions.

## **ADMINISTRATIVE SERVICES**

Technical assistance to the brigade staff elements and commander, and support to assigned and attached units for the following subfunctions of administrative services are normally provided by the corps personnel service company:

- Classified document control.
- Reports and forms control.
- Publications supply.
- Printing and reproduction.
- Files and records management.

Internal correspondence management and distribution are administrative services that must be closely monitored and managed by the brigade S1 section. SOPs for distribution procedures and specific responsibilities must be developed to ensure the responsive flow of correspondence occurs.

## **Chaplain Activities**

The brigade chaplain is the staff officer responsible for implementation of the unit religious program. Included in this program are worship opportunities, administration of sacraments, rites and ordinances, pastoral care and counseling, development and management of the UMT, advice to the commander and staff on matters of morals, morale as affected by religion, and ministry in support of combat shock casualty treatment. All elements enhance the total well being of the soldier and increase the cohesion of the brigade.

## **Postal Services**

Mail is the soldier's link to family and friends. Inefficient distribution of mail can quickly undermine morale. In the early stages of conflict at the brigade level, postal services to individuals are usually restricted to personal mail that conforms to the free mailing privilege (first class letter mail, postal/post cards, and sound recordings). The brigade S1 establishes a daily mail schedule. Outgoing mail is consolidated at the brigade S1 section prior to being forwarded to the divisional postal element. Incoming mail is dropped at the brigade S1 section for pickup by battalion personnel.

## **Finance Services**

The mission of finance support organizations during conflict is to provide high-priority support to the soldier on an area basis. This means the same finance unit supports all soldiers within a geographical locale, regardless of unit affiliation. During deployments, mobile pay teams from corps-level finance organizations provide support to the brigade. Individual soldiers are given the choice of receiving a specified amount of combat pay or cashing of personal check or other negotiable instruments for the same specified amount or less. The brigade S1 coordinates for support of the mobile pay team.

## **Legal Services**

Legal service support is provided to the commander and soldier by personnel of the division

staff judge advocate (SJA) section. This support is on an as-required basis coordinated by the brigade S1.

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## SECTION VI. BRIGADE COMBAT SERVICE SUPPORT PLANNING

CSS planning is conducted to accommodate the requirements of the supported force during all phases of an operation. The brigade plan or concept of the operation is not finalized until CSS planners have determined the supportability of the proposed COAs. Once the supported force concept of operation is determined, detailed CSS planning can continue. Battlefield support must be planned to satisfy requirements during the following operational phases:

- Prior to commitment (before).
- Commitment to battle (during).
- Future mission (after).

All areas of CSS (man, arm, fuel, fix, move, and sustain) must be considered during each operational phase to ensure an integrated responsive plan of support (see Figure 8-6). Support requirements must be projected and plans developed to satisfy these projected requirements. Supporting CSS plans should be as detailed as planning time permits.

The S4, S1, and FSB commander and his staff are the principal CSS planners in the brigade. The brigade XO, operating from the main CP, monitors CSS status and ensures appropriate brigade staff CSS interface. CSS commanders and planners must thoroughly know and understand the tactical mission and plans and the brigade commander's intent. They must know

- What each of the supported elements is doing.
- When, how, and where they will do it.
- What the priority of support is.
- What density of personnel/equipment is being supported.

After analyzing the concept of the operation, CSS commanders and planners must accurately predict support requirement. They must determine:

- What type of support is required.
- What quantities of support are required.
- What are the operational commander's priorities by type and unit.

Using the support requirement of the tactical plan as a base, the support capabilities of the CSS structure are assessed. The FSB commander must determine:

- What CSS resources are available (organic, lateral, and higher headquarters).
- Where the CSS resources are.
- When CSS resources are made available to the maneuver units.
- How the FSB makes these resources available.

Based on this information, the S4 and the FSB commander must then develop support plans

that apply resources against requirement in a manner that results in the most responsive support possible. Communication links must be established and maintained. The formation of the brigade rear CP, consisting of the collocated FSB CP and assets from the divisional brigade S1 and S4 sections, answers the requirement for continuous coordination and communications required for responsive, effective CSS. Orders that clearly describe tasks to be accomplished must be issued. Continuous follow-up must ensure tasks are being accomplished as planned.

CSS functions should be performed as far forward as the tactical situation and available resources permit. They should be performed at or close to the site where the weapon system is located in order to lessen evacuation requirements. Support must be continuous, using immediately available assets. This may involve bringing ammunition, fuels, parts, end items, maintenance personnel, and occasionally replacement crews or individuals to the forward elements such as battalion field trains, combat trains, and down-equipment sites. Planning and execution emphasize the concept of providing support to forces in the forward areas.

The FSB commander, in consonance with both the DISCOM and maneuver brigade commanders, may support the tactical plan using any of four operational techniques of the FSB.

- Movement of FSB within the brigade formation.
- Attachment of critical CSS assets to maneuver.
- Support from BSA /displace as an entity.
- BSA echelonment/displacement by bounds.

## **MOVEMENT OF FORWARD SUPPORT BATTALION WITHIN THE BRIGADE FORMATION**

This technique is used when likelihood of enemy contact is minimal. Logistical demands on the FSB are expected to be light; subordinate battalions will use basic loads and organic recovery assets to satisfy initial demand. Sufficient time is anticipated to allow set-up of FSB supplies and services and resupply of battalion assets prior to mission execution. FSB elements are dispersed within brigade march columns and are provided security by other elements of the brigade. This technique provides timely movement and march security of the FSB, but precludes any meaningful support until movement ceases.

## **ATTACHMENT OF CRITICAL COMBAT SERVICE SUPPORT ASSETS TO MANEUVER**

If operational distances are significant and secure ground lines of communication cannot be assured, as in cross-FLOT operations, selected CSS assets may be attached to combat elements of the brigade. Normally only critical classes of supply (Class III and Class V) and medical support augmentation would accompany the maneuver elements. The reserve battalion of the brigade may receive attachment of these elements and provide for their security during operations, or tailored packages may be attached directly to specific maneuver battalions as priorities dictate. While this method increases the maneuver unit's CSS capabilities, it also increases their vulnerability to enemy activity and reduces the maneuver force's mobility because of the absence of tracked CSS assets.

## **SUPPORT FROM BRIGADE SUPPORT AREA/DISPLACE AS AN ENTITY**

When brigade operations are conducted in clearly defined phases with identifiable windows between operations such as in river crossings, the FSB may support the brigade from a fully deployed BSA and then displace as an entity to the subsequent BSA location. This allows the FSB to maximize support from a mature logistical base that facilitates resupply and maintenance activities. This concept also enhances command and control of the FSB and simplifies actions for the supported force since a single point of contact is established for each service/facility of the BSA. It does, however, create a support "blackout" of up to 12 hours during BSA displacement and establishment of the new location.

## **BRIGADE SUPPORT AREA ECHELONMENT/DISPLACEMENT BY BOUNDS**

When operations require continuous logistical support operating within a secure rear area, this operational technique is recommended. Critical CSS assets are divided and displace by successive bounds. Normally, the FSB commander moves with the forward element to ensure rapid set-up of the displacing echelon. This technique provides more responsive support by minimizing the distance subordinate battalions of the brigade must travel to obtain required support. It also enhances the survivability of logistical assets by positioning them in different areas. Because of echelonment, command and control of FSB operations is degraded. This problem is exacerbated by the lack of radios within the FSB TOE. Greater reliance on unit SOPs is required to ensure smooth displacement.

CSS planners must know priorities for support. This is necessary to ensure that units with the highest tactical priority receive required support first. The brigade commander and his staff provide mission directives, determine requirements, and establish priorities within the brigade for CSS.

## **SUPPORTING THE OFFENSE**

The availability of adequate supplies and transportation to sustain the operation becomes more critical as the operation progresses. Supply lines and communications are strained, and requirements for repair and replacement of weapon systems mount. NBC contamination on the battlefield compounds these problems and degrades the performance of CSS units. CSS commanders and planners must anticipate these problems and ensure these considerations are included in their planning. During offensive planning, CSS considerations include:

- Forward, coordinated positioning of essential CSS such as ammunition, POL, and maintenance, preferably at night.
- Increased consumption of POL (terrain is a major factor).
- Using preplanned and preconfigured push packages of essential items including water, Class III and Class V supplies, and decontamination and MOPP gear.
- Using throughput distribution whenever feasible.
- Attaching CSS elements to supported maneuver units; however, CSS elements should be as mobile as the units they support.
- Echeloning support forward and initiating operations at the new site before ceasing operations at the old site.



- Using captured enemy supplies and equipment, particularly vehicles and POL.
- Planning communication support to cover the extended distances between combat and CSS units.
- Preparing for increased casualties and requirements.
- Uploading as much materiel as possible.
- Ensuring CSS preparations for the attack do not give away tactical plans.
- Coordinating real estate management to preclude attempted occupation by more than one unit.
- Planning for transition to the defense.
- Planning for EPW operations.

## **SUPPORTING THE DEFENSE**

The aims of CSS activities in the defense are to support defensive battles and to facilitate rapid transition to the offense. Defensive operations take many forms. They range from absolutely static to disrupt and destroy the attacking force. CSS commanders must be involved early in defensive planning. This allows them to plan support for the defense and to anticipate changing priorities. To support the defense, the FSB should:

- Consider stockpiling limited amounts of ammunition and POL in centrally located BPs that are likely to be occupied in the forward MBA.
- Have the FSB TOC monitor and track the ongoing battle to anticipate CSS requirements.
- Institute a command and control plan for CSS vehicles in the brigade area.
- Send forward push packages of critically needed supplies on a scheduled basis. These regular shipments of ammunition, POL, and repair parts to the combat trains help eliminate the need to call for supplies repeatedly, and they reduce the chance that a lapse in communications will interrupt supply. Resupply continues until the receiving unit issues instructions to the contrary.
- Resupply during periods of limited visibility to reduce the chances of enemy interference.
- Dispatch MSTs far forward to reduce the need to evacuate equipment.
- Consolidate different types of MSTs to maximize the use of available personnel and vehicles.
- Consider providing the security force with pre-positioned stocks of critical supplies in subsequent defensive positions throughout the security force area. Air delivery of supplies should be routine to take advantage of the helicopter's lift capabilities and flexibility.
- Push forward prepackaged Class IV and Class V in support of countermobility effort.
- Plan for increased demand of decontaminants and MOPP gear.
- Plan for high expenditures of ammunition.
- Plan for decreased vehicle maintenance.
- Plan for increased demand for obstacle and fortification materials. These materials should be pushed forward early based on preliminary estimates.

- Establish AXPs for efficient use of ambulances.
- Plan for ADA coverage consistent with air defense priorities, with emphasis on passive air defense measures.
- Coordinate with CA personnel concerning refugee control and CSS requirements.

## **SUPPORT FOR RETROGRADE OPERATIONS**

CSS for retrograde operations is particularly complex because many activities may be taking place concurrently. Maneuver units at any given time may be defending, delaying, attacking, or withdrawing. All must be supported under the overall retrograde operation. Since the retrograde is a movement away from the enemy, CSS personnel must:

- Echelon in depth and rearward.
- Limit the flow of supplies forward to only the most essential positions. All other supplies and equipment are evacuated early.
- Evacuate supplies and equipment to planned fallback points along the withdrawal routes.
- Keep supply and evacuation routes open and decontaminated.
- Withdraw forward medical treatment units as early as possible.
- Evacuate patients early, develop alternate means of evacuation, and augment field ambulance capabilities whenever possible.
- Recover, evacuate, or destroy equipment rather than risk being overrun while repairing at forward sites. Recovery personnel can use tanks and other fighting vehicles in which weapon systems are inoperable to tow other vehicles with inoperable motor systems.
- Move all nonessential CSS units and facilities to the rear as early as possible.
- Supply and evacuate at night and during other periods of limited visibility.
- Implement the division commander's policy on controlled exchange.
- Maintain full knowledge of the current tactical situation.

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## **SECTION VII. RECONSTITUTION**

### **GENERAL**

Reconstitution is extraordinary action that commanders plan and implement to restore units to a desired level of combat readiness. It transcends normal daily force sustainment actions. However, it uses existing systems and units to do so. No resources exist solely to perform reconstitution. Reconstitution is a total process. Its major elements are reorganization, assessment, and regeneration.

### **THE ROLE OF THE COMMANDER**

Reconstitution decisions belong to the commander. The commander controlling assets to conduct a regeneration decides whether to use scarce resources to regenerate a unit or not. The commander of the attrited unit decides to reorganize when required. The unit commander

begins the reconstitution process. He alone is in the best position, with staff support, to assess unit effectiveness. His unique perspective validates an assessment; he does not base his conclusions solely on facts, figures, and status reports from subordinate units and staff. His assessment relies also and probably more importantly on other factors. These include:

- Knowledge of his soldiers.
- Condition and effectiveness of subordinate commanders and leaders.
- Previous, current, and anticipated situations and missions.

He considers all these factors in his continuing assessment. They form the basis of his reconstitution decisions and recommendations. Chapter 4 of FM 100-9 discusses assessment factors in more detail.

## **REORGANIZATION**

Reorganization is an action to shift internal resources within a degraded unit to increase its combat effectiveness. Commanders reorganize before considering regeneration.

Reorganization may be immediate or deliberate.

### **Immediate Reorganization**

Immediate reorganization is the quick and usually temporary restoring of degraded units to minimum levels of effectiveness. Normally the commander implements it in the combat position or as close to that position as possible to meet near term needs.

### **Deliberate Reorganization**

Deliberate reorganization is conducted when more time and resources are available. It usually occurs farther to the rear than immediate reorganization. Procedures are similar to those of immediate reorganization. However, some replacement resources may be available. Also, equipment repair is more intensive, and more extensive cross-leveling is possible.

## **ASSESSMENT**

Assessment measures the unit's capability to perform a mission. It occurs in two phases. The unit commander conducts the first phase, an assessment of his unit before, during, and after operations. If he determines it is no longer mission capable even after reorganization, he notifies his commander. Higher headquarters either changes the mission of the unit to match its degraded capability, or removes it from combat. The second phase is to have external elements assess the unit after it disengages. These elements do a more thorough evaluation to determine regeneration needs. They also consider the resources available.

## **REGENERATION**

Regeneration involves the rebuilding of a unit through the large-scale replacement of personnel, equipment, and supplies; reestablishment of command and control; and mission essential training for the rebuilt unit. Because of the intensive nature of regeneration, it occurs

at a regeneration site after the unit disengages. It also requires help from higher echelons.

A regeneration task force is a task organization formed by the commander directing a regeneration. The regeneration task force conducts the external assessment and executes the regeneration order (see FM 100-9 for more information).

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## **SECTION VIII. WEAPON SYSTEMS REPLACEMENT OPERATIONS**

### **GENERAL**

The intensity of future battles will produce heavy losses of both men and materiel. It is imperative that weapon systems, complete with crews, be replaced quickly and efficiently. Weapon systems replacement operations (WSRO) set forth a method of supplying the commander with fully operational replacement weapon systems. The tasks associated with WSRO are no different than those presently used to get weapon systems to the combat commander. What is different is the method used in performing these tasks. WSRO require that the weapon system manager know the commander's priorities for issue of weapon systems assets, unit weapon system shortages, and the personnel and equipment assets available to fill unit shortages. The key to WSRO is the joint personnel and logistical managing, reporting, and monitoring of complete weapon systems at battalion, brigade, division, and corps. Three terms often used in describing WSRO are:

- **Ready-for-Issue Weapon.** This weapon system has been removed from its previous condition of preservation for shipment or storage and made mechanically operable. All ancillary equipment (such as fire control, machine guns, radio mounts, and radios) are installed. The vehicle has been fully fueled and basic issue items are on board in boxes. There is no ammunition on board.
- **Ready-to-Fight Weapon.** This is a crewed, ready-for-issue weapon with basic issue items and ammunition stored on board. The weapon system has been boresighted and verified.
- **Linkup.** This is the process of joining a ready-for-issue weapon with a trained crew.

### **WEAPON SYSTEM MANAGEMENT**

WSRO must be managed at each level of command to ensure maximum utilization of the major weapon systems. Management procedures for all critical weapon systems and their crews must be developed on an individual basis applicable to the division concerned. To manage weapon systems, a common weapon system manager is required. A weapon system manager is designated at each level of command and is charged with weapon system management. The weapon system managers mission is to maximize the number of operational weapon systems required in the battalions in accordance with the commander's or G3's/S3's fill priorities. Weapon system management at all levels is charged with quick-fix responsibility, matching serviceable vehicles, and surviving crews. At the brigade level, the XO normally coordinates the activities of the S1 and S4 to maximize the number of ready-to-fight weapon systems.

### **Brigade Management**

Battalion weapon systems status reports are submitted to the brigade rear CP. The S1 and S4 personnel ensure that information submitted on recurring SOP personnel and logistical reports compare with the information submitted on the "weapons effect signature simulator report." The "weapons effect signature simulator" report provides the weapon system suppliers the necessary information to assemble the appropriate weapon system. The report is then submitted to the division materiel management center (DMMC) with an information copy provided the support operations section of the FSB. The brigade XO is kept informed of WSRO managed systems and ensures reports are processed and coordinated as required. The brigade S1 and S4 must closely coordinate the needs identified on battalion reports with up-to-date equipment repairs from the FSB, and personnel returned to duty from the brigade treatment station. At the brigade level, weapon systems normally managed by WSRO are:

- Tanks with a four-man crew.
- Mortars with a four-man crew.
- BFVs with a three-man crew.
- M113-series infantry carrier with a two-man crew.
- ITV with a three-man crew.
- CFV with a five-man crew.

Other replacements to man or support these systems are managed by individual replacement procedures. CSS WSRO are coordinated through the division major subordinate command or separate battalion that is equipped with the individual system.

## **Division Management**

The division provides replacement weapon systems to battalions based on brigade priorities. Efficient allocation of limited resources is accomplished by managing weapon systems rather than focusing on personnel and equipment components separately. The DMMC and division AG coordinates the replacement of both vehicles and crews to maximize weapon systems on the battlefield.

## **Issuing Weapon Systems**

For purpose of this discussion, tanks are used as the example WSRO in the following paragraphs.

Transportation of equipment from theater Army or corps to division is normally by rail or heavy equipment transport (HET). Personnel arrive in theater and are transported forward to the division by rail, air, or truck. Incoming tanks from CONUS are processed by the heavy materiel supply company (or its equivalent) in the theater Army area command or COSCOM. This processing includes the installation of fire control equipment, radios, machine guns and the filling of fuel tanks to capacity. Pre-positioned war reserve stock at corps must be at a low level of preservation so that it is made ready for issue within a matter of a few hours.

The primary division linkup point for weapon systems is at the main support battalion supply and service company in the DSA. As the tank arrives in a ready-for-issue state, the crew need only perform those tasks to make the tank ready to fight. Based on the number of weapon



systems allocated to the division, the division commander determines the allocation to each brigade. The weapon system management officer contacts each brigade to determine the internal brigade allocation and assigns crews and weapon systems to specific battalions. Concurrently, the brigade S1 notifies subordinate battalions of projected gains and estimated time of arrival at the BSA for linkup.

The COSCOM or DISCOM must have facilities prepared to boresight and calibrate weapons. Complete weapon systems are transported from the DSA to the BSA by HET. If HETs are not available, the brigade dispatches an escort vehicle to the DSA to guide crews to the BSA. Upon arrival in the BSA, battalion guides meet assigned crews and weapon systems where they are led to the battalion field trains for fuel top-off and PAC in-processing. Weapons effect signature simulator reports are updated and the process begins again.

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# FM 71-3

## The Armored and Mechanized Infantry Brigade

### APPENDIX B JOINT AND MULTINATIONAL OPERATIONS

In future operations the brigade may not always fight under conventional Army control. The brigade may operate as part of a Marine Expeditionary Force under joint command. It may also participate in multinational operations with a combined staff.

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Section I.	<a href="#">The Joint Environment</a>
Section II.	<a href="#">Marine/Army Integration</a>
Section III.	<a href="#">Multinational Operations</a>

#### SECTION I. THE JOINT ENVIRONMENT

##### GENERAL

Joint operations are the integrated military activities of two or more service components of the US military. These service components include the Army, Navy, Air Force, and Marines. The Army must continue to expand its operations within a joint environment due to the force projection nature of its doctrine. Future Army employment is difficult to predict and could result in a multitude of combinations of joint forces being employed. The armored brigade plays an increasingly important role in joint operations.

##### COMMAND RELATIONSHIPS

Armored brigades normally operate as part of an Army or Marine functional component command. Marine Corps combat forces are assigned to the Fleet Marine Forces of the Atlantic and Pacific Commands. These Fleet Marine Forces are provided to support unified commands as directed by the national command authorities. The Marine Corps focus is on furnishing readily deployable, tailored combined arms Marine air-ground task forces. A Marine air-ground task force is composed of a command element, a ground combat element, an air combat element, and a CSS element. A Marine air-ground task force may vary in size from a Marine Expeditionary Force down to a Marine Expeditionary Unit. When the armored brigade is employed by the Marine Corps, they will normally operate as part of a joint force. The joint force commander will determine the command relationship between Army forces and Marine forces based on METT-T.

If the brigade is organized under the control of a Marine Expeditionary Force, it generally operates directly under the Marine Expeditionary Force commander as an independent unit.

See [Section II](#) for details on Marine/Army integration.

In some circumstances, it is possible for all the Army forces involved in an operation to organize under a brigade headquarters. In this case, the brigade may function as the Army forces headquarters.

If the brigade is organized under Army forces headquarters, it either operates directly under the Army forces headquarters, or operates under an Army division or corps headquarters. If the brigade is the Army forces headquarters, it is normally OPCON to the joint forces command.

IAW FMs 100-7 and 100-10, the roles of the Army service component commander (ASCC) are

- Provide Army force packages to the CINC and advise on their employment.
- Provide all Title X support to the Army forces in theater.
- If designated by the CINC, the ASCC may exercise OPCON of the war fight.

The brigade exercises tactical control over its subordinate units. This command relationship is the detailed and usually local direction and control of movement and maneuver necessary to accomplish missions and tasks. It allows the commander to apply force and direct the tactical use of logistical assets.

The ASCC operates as a component commander under one of the three following types of joint commands:

- Unified and specified commands.
- Subordinate unified commands.
- Joint task forces.

## **Unified and Specified Commands**

The President establishes unified commands through the Secretary of Defense, with the advice and assistance of the Joint Chiefs of Staff, to perform a broad, continuing mission. Unified commands are also known as combatant commands. A unified command is composed of two or more services under a single commander. The unified commander normally exercises combatant command through service component commanders.

Examples of unified commands include US European Command and US Pacific Command. Unified commands provide the CINC with areas of responsibility that include all associated land, sea, and airspace. Other unified commands are given functional responsibilities such as transportation or special operations. An example of a functional unified command is the US Special Operations Command.

A specified command is also established to perform a broad, continuing mission. A specified command differs from a unified command in that the specified command is primarily a single service command. The specified command may, however, have some elements of other services assigned.

## **Subordinate Unified Commands**

The unified commander may establish a subordinate unified command to carry out broad, continuing missions under his command.

## **Joint Task Forces**

The Secretary of Defense and the commanders of unified, specified, and subordinate unified commands along with existing joint task forces may establish a joint task force. Elements of two or more services under a single joint task force commander comprise the task force. The joint task force performs missions of specific, limited objectives or missions of short duration. It normally dissolves when its purpose is achieved.

## **RESPONSIBILITIES AND ROLES OF THE ARMY SERVICE COMPONENT COMMANDER**

As previously stated, the Army service component commander or his equivalent will be the next higher headquarters for the armored brigade assigned the role of an Army forces headquarters. The responsibilities and roles of the Army service component commander include

- Assuming responsibility for properly employing subordinate forces and accomplishing operational tasks assigned by the joint task force commander.
- Establishing the link between Army forces and the joint command.
- Planning and executing operations in support of the joint campaign plan.
- Planning and executing support operations to sustain subordinate Army forces
- Assuming responsibility for overseeing internal administration and discipline, training Army doctrine, and TTPs.
- Designating specific units to meet joint force requirements.
- Providing logistics functions normal to the component.
- Ensuring tactical employment of service components.
- Providing service component intelligence operations.

A combatant commander can establish an Army command that reports directly to him instead of the Army service component commander. The Army service component commander would then plan and execute operations to sustain this command and other Army units.

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## **SECTION II. MARINE/ARMY INTEGRATION**

### **TASK ORGANIZATION**

The armored brigade provided to the Marine Corps may be an active or reserve component divisional brigade or a separate armored brigade. The brigade normally operates with a proportional share of division assets. The brigade uses these assets to provide armor support to the Marine Corps mission. The divisional brigade deploys with its assigned maneuver units plus habitual support slice. This includes two tank battalions, one mechanized infantry battalion, one engineer battalion, one DS FA battalion, an ADA battery, a forward area signal platoon, an MP platoon, combat IEW elements, a TACP, and an FSB. The USMC will provide air and

NGLO assets and one SALT per maneuver battalion when working in support of Marines.

## **BATTLEFIELD OPERATING SYSTEMS**

### **Intelligence**

The armored brigade has its habitually associated GSR teams. Successful combat operations depend on the ability of the combined arms team to find, fix, fight, and finish enemy forces through a combination of offensive and defensive operations. The Marine air-ground task force intelligence functions are coordinated by the surveillance, reconnaissance, and intelligence group (SRIG). The SRIG has signals intelligence (SIGINT), HUMINT, and reconnaissance assets that provide intelligence to the Marine air-ground task force. A key to successful joint operations is the ability to gather, analyze, evaluate, and disseminate combat intelligence. Minor differences in intelligence doctrine exist between the Army and the Marine Corps. Leader and liaison training must focus on the differences in intelligence reporting procedures and techniques. Training must also address the different intelligence requirements of armored forces as compared to light forces.

### **Maneuver**

There are no major doctrinal changes required to permit effective integration of an armored brigade in support of Marine Corps operations. However, there are areas in doctrine that contain inconsistencies or differences in interpretation. The armored brigade executes the same missions and roles as prescribed throughout this manual. The armored brigade's potential as a combat multiplier is the basis for cross attachment with the Marine Division. The capabilities of the armored brigade provide a new dimension to the Marine Division by closing the armor vulnerability window and providing an increased level of overall security and flexibility.

During maneuver operations, some of the following planning considerations should apply:

- Marine air-ground task force vehicles are designed for amphibious operations.
- Marine Corps armor is primarily used to support infantry.
- A preferred Marine Corps maneuver is the "recon pull" in which reconnaissance forces find gaps and pull the bulk of attacking forces through those gaps to exploit the situation.
- The defense is not part of a Marine air-ground task force's essential training and little training is done for complex defenses.

### **Fire Support**

The Marine Corps relies on NGF and the aviation combat element for CAS. The brigade receives representatives and equipment to effectively integrate NGF and air support operations. The armored brigade receives two SALTs to control the Marine Corps CAS. The SALTs are normally assigned to any two of the maneuver battalions in the armored brigade. Army and Marine Corps FS doctrine, TTP, and employment principles are very similar. There are, however, some areas that could allow for some inconsistencies or differences in interpretations in the areas of FS control measures, CAS, and establishing liaison.



## **Air Defense**

The armored brigade has its habitual BSFV battery. Successful air defense during joint operations requires strong airspace control procedures and an integrated system of mutual and complementary defenses. Strong liaison teams, excellent communications, and standardized procedures as a minimum are essential when conducting joint operations.

The primary differences between Marine and Army air defense are weapon systems and communications. Both the Marines and the Army use the Stinger, Avenger, and Hawk weapon systems, but only the Army uses the Patriot system. However, the Marines do not have a tracked ADA system, such as the BSFV. The light armor vehicle air defense (LAVAD) is the Marine armored ADA system. The BSFV battery can provide air defense protection to the brigade with some modifications. The BSFV battery must have its ADA sensor/scout section and maintenance contact team from the main support battalion. The Army and the Marines use the same employment guidelines and principles. Both services use the same IFF system and have similar doctrine terminology, air defense control measures, and the same air defense mission: protect the force from the air threat; integrate into the supported unit's scheme of maneuver.

The brigade staff should consider integrating AM communications within the battery to allow interface with the Marine Corps early warning net. Currently, Army BSFV batteries use FM communications to interface on the Army early warning net. The brigade should position an LO team at the Marine Division replicating the functions of the Army division LO (assistant division air defense officer [ADADO], division A2C2 cell).

## **Mobility and Survivability**

The armored brigade should include its normal slice of a combat engineer battalion and chemical and decontamination assets. Both Army and Marine Corps maneuver units are supported by engineer forces to enhance their mobility and survivability. Much of the terminology and procedures are similar. However, the major difference between the two services is the employment philosophies for engineer forces. Army forces go to great lengths to enhance their defensive situations through engineer operations. Marine Corps units do not normally pay a great deal of attention to defensive enhancements. As a result, liaison between engineer headquarters should be established if integrated defensive operations are required. Construction, countering, and reporting barriers, obstacles, and minefields can be facilitated by using joint reporting formats and procedures during joint operations. There are no conflicts between Army and Marine Corps engineer doctrine and TTP. The Marine Corps uses Army engineer field manuals. The Marine Corps also uses the same NBC warning and reporting system as the Army.

## **Combat Service Support**

The Army sustains the armored brigade. Normally, an armored brigade integrates with the Army support structure by receiving support from the DISCOM and corps assets. However, these units may not be in theater and the Marine Expeditionary Force is incapable of supporting

the brigade. In this case, a logistics structure is provided to augment the FSB as well as to provide operations normally conducted by division and corps assets at the port.

Corps support group (CSG)(-) under the control of the Army forces headquarters arrives in theater to provide support as a function of Army executive agency support to all ground forces. The CSG(-) provides the Materiel Management Center (MMC) POL, transportation, maintenance, ordnance, supply and medical support to the brigade above the support provided by the brigade FSB. The Marine Corps Expeditionary Force provides limited Class I, Class III, common Class V, Class VIII, and Class IX to the Army armor unit. The brigade staff needs to conduct detailed planning and execution of the logistics operation.

CSS doctrine requires expansion to encompass joint operations. The Army and Marine Corps must resolve CSS terminology differences to effectively work together. The Army provides dedicated and habitual support to its combat units as well as area support. The Marine Corps task organizes its CSS elements at each level depending on the mission. The Marines have a force service support group that has eight battalions assigned. These battalions are task organized, based on the mission, into CSS detachments that provide the required logistical support to the combat units. The Marines normally conduct CSS operations within 50 miles of the beach or ship support. Deeper inland operations may mean potential CSS problems for the Marines.

Because the Marines cannot sustain the armored brigade, the US Army must be prepared to provide all necessary logistical support (see Figures B-2 and B-3).

**Figure B-2.** Recommended logistical support for divisional brigade with approximate personnel strengths.

PORT	CORPS SPT GP(-)	FSB AUGMENTATION
TRANS GROUP - 2226	HHD, AMMO ACTG - 17 HQ AMMO CO - 13 ORD PLATOON - 87 ORD PLATOON - 68 TAC PETROLEUM ELEMENT - 150 NONDIV MAINT CO - 250 DIV PERS MGT CNTR - 15 PERSONNEL DET - 23 POSTAL PLT - 10 JAG - 1 FINANCE DET - 19 MED TRUCK - 80 MMC ELEMENT - 3 FWD SPT PLT - 18 WATER PLATOON - 15 BATH TEAM - 15 LAUNDRY TEAM - 19 SPLIT OPS - 25	ORD SECTION - 25 POL PLATOON - 40 MLRS MAINT TM - 6 COMME PLATOON - 10 AVIM - 12 HET ELEMENT - 8 MED TRUCK ELEMENT - 20 MCC ELEMENT - 3 FWD SURGICAL TM - 20 AIR AMB SECTION - 26 MED OPS CELL - 10 MORTUARY AFFAIRS TM - 8 AVIM - 7
	828 TOTAL	195 TOTAL

**Figure B-3.** Recommended logistical support for separate brigade with approximate personnel strengths.

PORT	CORPS SPT GP (-)	SPT BN AUGMENTATION

TRANS GROUP - 2226	HHD, AMMO ACTG - 17 HQ AMMO CO - 13 ORD PLATOON - 87 ORD PLATOON - 68 TAC PETROLEUM ELEMENT - 150 NONDIV MAINT CO - 250 DIV PERS MGT CENTER - 15 PERSONNEL DET - 23 POSTAL PLT - 10 FINANCE DET - 19 MED TRUCK - 80 MMC ELEMENT - 3 WATER PLATOON - 15 BATH TEAM - 15 LAUNDRY TEAM - 19 SPLIT OPS - 25	ORD SECTION - 25 POL PLATOON - 40 MLRS MAINT TM - 9 COMME PLATOON - 10 AVIM - 12 MCC ELEMENT - 3 MEDICAL OPS CELL - 6 AIR AMB SECTION - 26 AVUM SPT PACKAGE - 7 MORTUARY AFFAIRS TM - 8
	<b>809 TOTAL</b>	<b>146 TOTAL</b>

## Command and Control

The brigade works best as a unified entity. Changing its task organization could reduce its effectiveness. However, when the armored brigade is in reserve, the ground combat element commander can request artillery or engineer assets through the Marine Expeditionary Force commander to support division operations.

Tactical telephone connectivity into the Marine Corps system is provided by the Marine Corps. The Marine Corps establishes the multichannel link to the Army armor unit and provides encryption devices to link single channel radio (FM) from the Marine headquarters to the Army armor force headquarters.

To facilitate planning and execution with the command and control process as well as the logistics process, the Army will send LOs (based on TOE) to higher Marine Corps headquarters and adjacent headquarters. IAW Joint Publication 3-0, liaison from the Marine headquarters to the Army armor force headquarters will be established to enhance the understanding of the roles, missions, and commanders intent at both the sending and receiving unit. All liaison teams must exchange procedures, guidelines, and SOPs when providing critical information such as missions, tactics, organizational structure, doctrine, and weapons capabilities.

Joint Publication 1 reads, "Experience shows liaison is a particularly important part of command, control, and communications in a joint force." Liaison team members need appropriate rank and experience and must have adequate mobility and communications equipment. All liaison teams should bring supplies and life support equipment to assist in operations. Liaison teams should arrive at the designated locations with three days worth of supplies. The receiving unit is then responsible for providing logistical support to the liaison team. When liaison support is complete, the liaison team returns with three days worth of supplies.

## SECTION III. MULTINATIONAL OPERATIONS

### GENERAL

Combined operations involve the military forces of two or more nations acting together in common purpose. If the relationship is long standing and formalized by mutual political, diplomatic, and military agreements, it is referred to as an alliance. If the relationship is short term, ad hoc, and less formal, it is referred to as a coalition. This type of structure calls for each contributing nation to have forces that the allied commanders can assign to specific geographic areas. This is similar to a commander in a coalition operation. Three types of combined command organizations are:

- By nationalities.
- By function.
- By nationalities and function.

#### Organization by Nationalities

This type of structure calls for each contributing nation to have forces that the allied or coalition commander can assign to specific geographic areas. This structure requires a combined staff only at supreme coalition or allied headquarters. However, the armored brigade may need to perform various liaison functions with combined forces.

#### Organization by Function

This type of structure organizes forces by function regardless of nationality. It requires a combined staff at the lowest level of command where two nationalities participate. If the armored brigade is acting as the Army forces headquarters, it is possible that the armored brigade requires a combined staff within this structure. A combined staff at brigade level could also occur during some types of OOTW that large armored forces (above brigade) are not employed.

#### Organization by Nationalities and Function

This is a combination of the above two structures. Units are organized by nationalities as well as by function. See FM 101-5 and FM 100-8 for further explanations of combined staffs.

### PLANNING CONSIDERATIONS

#### Intelligence

During tactical operations, the brigade commander and staff must arrange for rapid dissemination of intelligence information. This presents a challenge when operating with combined forces. The brigade needs to provide intelligence LOs and dedicated communications networks with allied or coalition forces. Since the brigade is not currently organized with these additional assets, the Army service component commander or next higher headquarters may need to augment the brigade staff.

## **Maneuver**

Tactical cooperation requires a great deal of precision, since it deals with immediate combat actions. Adjacent and supporting units must coordinate differences in tactical methods and operating procedures; differences in using other service capabilities such as CAS, varying organizations, and their capabilities; and differences in equipment. Vehicle recognition is critical. In addition, tactical plans at the brigade level should address people and equipment, fire control measures, air support arrangements, communications, signals, liaison operations, and movement control. The commander's intent and the concept of the operation should also receive special attention to avoid confusion that might occur because of differences in doctrine and terminology.

## **Fire Support**

The focus of FS at the tactical level is the effective synchronization of the full range of fires provided by all friendly forces. This involves the integration of FA, CAS, NGF, and electronic countermeasures. The brigade must fully integrate into a rigid adherence to a common set of FS control measures established at higher levels. The brigade commander must give early and continuous emphasis to this process.

## **Mobility and Survivability**

The armored brigade must focus on differences in engineer equipment, differences in types of mines and employment techniques of obstacles, and the exchange of all friendly information concerning obstacle employment with special emphasis on the reporting systems.

## **Air Defense**

As with maneuver, aircraft recognition is of extreme importance. The brigade needs to consider synchronization of aircraft control measures such as ACAs, differences in the warning and reporting systems, and the integration of all friendly forces into an early warning communications net.

## **Combat Service Support**

The armored brigade should consider the differences in logistics doctrine, stockage levels, logistics mobility, interoperability, and infrastructure. Often, US forces supply allied and coalition forces with materiel and receive CSS in exchange. The armored brigade needs to effectively operate with various host-nation support (HETs are a good example) and coordinate movement plans, road usage, and port activities.

## **Command and Control**

The focus of successful combined operations centers on achieving unity of effort. All the considerations of combined operations must be involved, to include:

- Differences in military doctrine, training, and equipment.



- Differences in culture and language.
- Teamwork.
- Trust.

Effective coordination, liaison, and communications must be established with combined units on the brigade's flanks, front, and rear.

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# FM 71-3

## The Armored and Mechanized Infantry Brigade

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### APPENDIX C

### ARMORED OPERATIONS WITH LIGHT INFANTRY

### AND

### SPECIAL OPERATIONS FORCES

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Section II.	<a href="#">Armored Brigade and Light Infantry Battalion Operations</a>
Section III.	<a href="#">Light and Armored Operations</a>
Section IV.	<a href="#">Special Operations Forces</a>

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### SECTION I. INTRODUCTION

Across the spectrum of operations, there is an overlap in which both armored and light forces can operate. The use of a mixed force in this overlap takes advantage of the strengths of both forces and offsets their respective weaknesses. The integration of armored and light forces can take advantage of the enemy forces structure to attack its weaknesses and seize the initiative .

The Army recognizes three general types of combat forces - armored, light, and SOF.

- Armored forces are armor and mechanized/motorized infantry units.
- Light infantry forces have no organic carriers, including airborne and air assault infantry.
- SOF support conventional military operations at all levels of war and influence deep, close, and rear operations. SOF are used optimally in deep operations at the strategic and operational level. SOF include Army Special Forces, Rangers, PSYOP, CA, and Army special operations aviation.

Armored and light operations occur when light forces are attached to an armored force. Light and armored operations occur when an armored force is OPCON to a light infantry force in close terrain occupied or controlled by the light infantry force.

This appendix outlines planning, preparing, and executing operations with the mix of armored and light infantry forces at the brigade level and above.

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## **SECTION II. ARMORED BRIGADE AND LIGHT INFANTRY BATTALION OPERATIONS**

The potential to use both forces together to capitalize on each others strengths, offset their weaknesses, and attack the perceived weaknesses of any regional threat in war and conflict is unlimited. The interjection of light forces in an armored theater allows a flexible response to increasing tensions and a rapid response in the face of a sudden all-out attack.

Armored and light infantry forces are not routinely mixed but can be effective given the proper situation. The decision to cross-attach light infantry is based on corps-level war planning or on the initiation of a subordinate commanders request for light infantry augmentation. In all cases, the decision to use an armored and light force together is driven by the factors of METT-T.

One advantage of mixing armored and light infantry forces is that the maneuver commander has more flexibility in synchronizing his operation. Light infantry can infiltrate to attack key command and control nodes, for example, while mechanized infantry creates a penetration for an armored task force to exploit. The mechanized infantry can then follow and support the armored task force, while light infantry air assaults or parachutes to continue to seize key terrain or to cut off enemy forces.

The challenge of armored, light, and SOF operations is to understand the capabilities and limitations of each type of armored and light force structure. (For a detailed explanation of the different types and tables of organization and equipment of infantry units, see SH 7-176.) This appendix uses the Infantry Division (Light) Battalion TOE 07015L000 as an example to highlight discussion.

The brigade echelon of command is the most likely armored echelon to have a light unit attached.

### **CHARACTERISTICS OF THE LIGHT INFANTRY BATTALION**

The light infantry battalion is an austere combat unit whose primary strengths are its abilities to operate under conditions of limited visibility and in close combat. When attached, the light infantry battalion may come with a 105-mm howitzer battery from the infantry brigades direct support FA battalion. Employment considerations for the 105-mm battery are discussed in the FS operating system portion of this section.

#### **Organization**

The light infantry battalion is organized as depicted in Figure C-2.

#### **Summary of Equipment**

The primary weapon of the light infantry battalion is the M16. There are 65 M203 grenade launchers, 18 M60 machine guns, and 18 Dragons in the battalion. There are four TOWs, four 81-mm mortars, and six 60-mm mortars. The battalion has 27 HMMWVs and 15 motorcycles. There are no 2-1/2 ton or larger trucks in the battalion. There are 42 AN/PRC-77 radios, which

FM 71-3, The Armored and Mechanized Infantry Brigade, APP...RATIONS WITH LIGHT INFANTRY AND SPECIAL OPERATIONS FORCES are the primary means of communication within the battalion. There are no redundant radios.

## Augmentation

It is important to understand exactly what resources a light battalion actually has, regardless of TOE. In most cases, a light battalion requires augmentation to fight in an environment of war. Table C-1 shows an example augmentation of a light battalion.

**Table C-1.** Example of light battalion augmentation.

Possible Augmentation	Provided By
One GSR section	Armored brigade GSR slice, or light division MI battalion
One Stinger platoon (BSFV)	Armored brigade CS slice
One initial fire support automation system (IFSAS) w/FSO	
Three forward entry devices (FED)	
One light engineer platoon	Light division engineer battalion
One light truck company (-)	Corps
One unit level maintenance team	Light brigade
One maintenance team (DS)	Light division
One mess team	Light brigade
One smoke/decon platoon LO	Corps, armored brigade/light battalion
One REMS team Light division	MI battalion

LOs should be exchanged at the time of task organization. LOs must know their units capabilities and strengths and should be exchanged for both maneuver and logistics cells.

## Missions

The missions given to a light infantry battalion in armored brigade and light infantry battalion operations must take into account the armored enemy's superiority in mobility and firepower. The light infantry battalion must offset its vulnerabilities with dispersion, cover and concealment, and use of close and hindering terrain to slow the enemy. Table C-2 shows possible light infantry tasks.

**Table C-2.** Example of possible light infantry tasks.

Armored Brigade Mission	Light Battalion Task
Movement to Contact	Clear and secure restricted areas; follow and support
Hasty and Deliberate Attack	Use air assault to fix enemy reconnaissance, infiltration air assault To seize objectives, breach obstacles; create a penetration

Exploitation	Secure LOC; use air assault to seize terrain or attack enemy forces
Pursuit	Clear bypassed forces; use air assault to block enemy escape
Follow and Support	Secure key terrain and LOC; provide rear security
Cover	Provide reconnaissance, deception, stay-behind operations
Defend in Sector	Block dismounted avenues; counterreconnaissance; occupy strongpoint; ambush; provide rear area security; conduct military operations on urbanized terrain
Breakout from Encirclement	Create penetration
Linkup	Serve as follow-up echelon
Demonstration	Conduct display operations
Retrograde Operations	Rear security, route clearance, occupy positions in depth

## Operational Planning Considerations

When employing armored or light infantry forces together, both forces' BOS must be integrated.

### *Intelligence*

If information determined by the IPB process is imprecise, light infantry casualty rates are heavier due to the light battalion's relative lack of mobility and differences in weapons ranges between the light force and opposing armored units. Enemy locations must be pinpointed to eight-digit grid coordinates. Avenues of approach and mobility corridors must be evaluated for both armored and light forces. Armored enemy weaknesses must be well defined by the armored brigade S2 and provided to the light infantry unit in a timely manner.

The light infantry battalion is another source for conducting reconnaissance patrols, establishing LPs/OPs, and forming stay-behind teams. The brigade S2 and brigade S3 must consider and incorporate the light infantry battalion into the brigades R&S plan.

Given appropriate terrain, light infantry battalions can perform a screen mission and effectively defeat enemy reconnaissance (counterreconnaissance).

### *Maneuver*

Light infantry is used in close or restrictive terrain to deny the enemy avenues of approach. Enemy mobility is reduced, and the advantage of long-range weapons is nullified.

To help protect the light infantry force, plan to move light infantry during conditions of limited visibility, such as in darkness, severe weather, or fog.

Linkup operations of light infantry with armored forces must be planned and executed in a



timely manner. If the light infantry battalion is to attack in advance of the armored brigade, the armored brigade must relieve the pressure from an enemy armored attack. Light units left in contact with an enemy armored force in other than close terrain may be overrun or decimated by artillery if not reinforced with armored forces rapidly.

The brigade S3 must ensure required flank coordination between the light infantry battalion and adjacent armored units is conducted when planning defensive or offensive operations. Flank coordination must emphasize:

- Deconflicting the effects of projectiles from direct-fire weapons on light infantry operating in the area.
- Identifying minimum safe trigger lines for use.
- Shifting of indirect fires.

Recognition signals must be clearly understood by both forces when conducting or completing operations where both forces link up or merge.

ACAs and SEADs must be planned early any time the light infantry battalion uses aviation for movement or attack support. These measures must be planned in and out of the objective/target area.

### ***Fire Support***

Since light forces are extremely vulnerable to indirect fire, the armored brigade works through its supporting headquarters to ensure designated counterbattery support is available. The brigade FSO should recommend critical friendly zones to the brigade S3 or light battalion commander. Critical friendly zones may be established in locations that the enemy may consider the employment of indirect fires such as at friendly breach sites, attack positions, support by fire positions, or choke points.

The lack of digital message devices (DMD) and variable format message entry devices forces the light battalion to send its calls for fire over a voice net. If the armored brigade cannot operate with both voice and digital traffic on the fire control nets, it must supply the light infantry battalion with DMDs.

The light infantry battalion's mortars must be integrated into the brigade's indirect fire plan. The improved 81-mm mortar has nearly the same range and lethality as an armored battalion's 4.2-inch mortar.

If the light infantry battalion brings a 105-mm FA battery with it, the brigade FSCOORD should recommend to the brigade commander what mission it should be given. A good procedure is to attach the battery to the brigades DS FA battalion for command and control and logistics, and to ensure it is fully synchronized into the brigades plan. Do not have just the 105-mm FA battalion support the light task force since it can provide the brigade additional firepower. With this FA battery comes the additional requirements of rearming and refueling it. The brigade must ensure the battery receives ammunition and rations like any other unit under its command. During planning, particular attention must be given to ensuring the 105-mm artillery battalion and 60/81-mm mortars are rearmed. The brigade S3 must ensure that the brigade S4

provides the division with the forecast for 105-mm artillery or 60/81-mm mortar ammunition immediately on attachment.

The FS products for the entire brigade must be the same. Having special target lists and overlays for the light task force does not fully synchronize them into the brigades plan. There should be one brigade target list, one brigade FS execution matrix (with the light task force included in the left margin) and one overall scheme of fires. The same holds true if the 105-mm battery is added to the brigades DS FA battalion. There should be no separate products provided to them. They must be given brigade targets to execute and be part of the brigade fire plan. They should be included in the brigades DS FA battalion FA support plan. This ensures they are synchronized, and also resupplied.

### ***Air Defense***

Light infantry's primary means of air defense are passive - do not fire first, move at night, and camouflage troop concentrations.

The positioning of the light infantry battalion and its Stinger teams can secure a friendly air corridor and also deny that same air avenue to enemy aviation. The brigade staff must integrate the light infantry's ADA assets into the brigade overall ADA plan.

Resupply of Stinger missiles may hamper continuous air defense coverage if not planned for method and place of delivery.

Stinger teams must either dig in or move immediately upon firing. Missile contrails point to firing positions.

### ***Mobility and Survivability***

Within the light battalion, engineer priority is usually survivability, countermobility, and then mobility.

The light engineer platoon has no vehicular haul capacity. When pushing Class IV to light infantry, plan to drop small loads at specific sites along the obstacle belt. Build obstacles in such a way that flanking fires can be used to stop the enemy and force him to dismount to clear the obstacle. Light infantry has limited AT assets and relies on destroying enemy vehicles within small-arms range.

When breaching, lanes must be thoroughly reconnoitered. Use limited visibility to conduct covert breaching efforts.

### ***Combat Service Support***

Light infantry unit CSS system works on the basis of push, not pull. The light brigade ordinarily uses throughput distribution to its battalions. It is based on planning and status reporting, rather than requisitioning. This is the major reason for the need to exchange logistical LOs within the light infantry battalion and brigade logistical CPs.

Class I for the light infantry unit is normally handled at brigade level. The light battalion should

have a mess team from its parent brigade. The team consists of eleven enlisted personnel, one 5-ton truck, and one M149A1 water trailer. The M149A1 trailer is the only dedicated water-haul asset in the light battalion. Water resupply is an item of command interest and must be given priority for resupply during the brigade's planning process.

Class III resupply is handled by centralized top-off in the trains and the exchange of 5-gallon cans. The light battalion support platoon has two 500-gallon collapsible fuel blivets.

Class V differences lie mainly in mortar and 105-mm artillery ammunition. Light infantry uses both 60-mm and 81-mm mortars.

Light infantry relies on four HMMWV ambulances for MEDEVAC. The battalion should be augmented by M113s from the FSBs medical company. Ground and aerial AXP's must be planned to reduce casualty evacuation turnaround time.

Class IX for the light battalion focuses on replacement of assemblies at the brigade level. The light battalion has one assigned mechanic; the light brigade augments the battalion with a unit-level maintenance team and a DS maintenance team.

Transportation of the light battalion when not in contact and its supplies must be managed by the brigade S4 as requested by the light battalion or brigade S3. The light battalion support platoon allocates six HMMWVs to haul ammunition, one for POL, one for other classes of supply, one for the support platoon leader, and three for command vehicles for the rifle companies. Transportation assets provided to the light infantry battalion from the armored brigade should be placed in the BSA under control of the light battalion S4 NCOIC. The brigade staff must recognize the lack of organic transportation assets in the light battalion and that it may require augmentation to accomplish missions assigned.

### ***Command and Control***

Armored and light force commanders and staffs must understand the capabilities and limitations of each others units. Since this presents problems to both units, LOs should be exchanged and main CPs collocated if possible. Exchange of unit SOPs and SOI must occur immediately on attachment. In many tactical operations, the light battalion crosses the LD 24 to 48 hours prior to the armored force. This requires the armored brigade staff to develop a timeline that outlines the OPOD issuance time, resource drop-off times, rehearsal time, and other actions of the brigade centered around the infantry LD time. The brigade XO must ensure all staff sections understand and monitor the actions of the light infantry until the brigade mission is accomplished.

Orders at the brigade level must be simple, timely, and easy to execute. In the light infantry battalion, it is difficult to make changes in either plans or execution and then verify those changes up and down the chain of command. The brigade commanders scheme of maneuver must ensure the mission assigned to the infantry battalion can be accomplished based on its capability and the inability of the enemy to counter the operation.

Communications become a major factor in light and armor operations. Planning must offset the limited number and range of the light units communication capability. The light infantry

battalions main CP has high-powered FM radios, at least one MSRT, and often single-channel TACSAT radios.

The low power radios of moving light forces must be considered by the brigade staff. FS nets are also a problem due to dismounted observers operating low power radios. Brigade CPs must carefully position to improve communications, encourage MSRT use, and maximize brigade retrans as well as any available airborne communications.

Digital systems, which mechanized forces rely on, may not exist in light units; if present, they may not have the same distribution. FS and intelligence as well as command and control automation should be compared in advance; analyze the impact and create manual work-arounds.

## **OFFENSIVE TECHNIQUES**

### **Movement to Contact/Hasty Attack**

In a movement to contact, it is usually best for the light infantry battalion to follow behind the armored brigade. The light unit can be employed along the line of march as a rear OPSEC element. Depending on choke points or restrictive terrain along the route of advance, the light infantry battalion can be airlifted forward to secure these choke points to allow unimpeded mobility to the brigade. The light unit can also fix and destroy bypassed enemy pockets of resistance or perform any combination of these missions.

### **Deliberate Attack**

A light infantry battalion has its greatest utility when the brigade is conducting a deliberate attack. The nature of the deliberate attack lends itself to the tempo of dismounted attacks and allows more planning time for infiltration and airmobile operations. Among the options available to the brigade commander are the following:

- Conduct an infiltration attack on the enemy's indirect fire assets and command and control centers.
- Conduct an airmobile attack to create a blocking position.
- Conduct an airmobile attack to attack the enemy's uncommitted forces from an unexpected direction.

Light infantry deliberate attacks are best accomplished at night or during periods of limited visibility. Attacks during periods of limited visibility are characterized by:

- Extensive use of thermal night sights, GPS and GSR to vector light infantry units toward an enemy position.
- The use of indirect fire assets whenever possible to destroy or disrupt the enemy. All available FS assets should support the light units attack until priority shifts to the armored force upon its commitment.

Commanders must take great care in synchronizing all these operations. The attack by the light infantry battalion must coincide or complement the armored forces attack and subsequent

linkup. A light infantry battalion has the potential to be a tremendously disruptive and powerful combat multiplier.

## **Exploitation and Pursuit**

Light infantry's utility in exploitation and pursuit comes solely from its capability to conduct airmobile operations. The capability of the light infantry unit to be airlifted forward of the lead elements of the armored brigade to conduct blocking operations can mean the difference between destruction of a retreating (but organized) enemy force and a complete rout of the enemy.

## **DEFENSIVE TECHNIQUES**

The armored brigade may give the light infantry battalion a sector, strongpoint, or BP to defend. METT-T dependent, it is usually best to give the infantry a sector. It is usually next best to assign it a strongpoint mission with augmentation by an armored unit to conduct counterattacks against enemy armor.

### **Defense in Sector**

The objective of a defense in sector is to maneuver to place maximum combat power on the enemy. Because armored unit mobility is hampered when operating in restricted terrain, a light infantry battalion can be used to protect them from enemy infiltration. A light infantry battalion can also channel enemy forces into EAs for indirect fires, aviation, or armored force engagement.

In a sector defense, the light infantry battalion should fight no more than one enemy battalion at a time. The light battalion should have at least 48 hours to prepare the sector. The light battalion TOE does not include entrenching equipment beyond the individual entrenching tool. Experience shows that to achieve the 48-hour standard, the battalion needs two picks and shovels per squad and at least two small emplacement excavators or backhoes. It also needs chain saws to cut trees for overhead cover, if trees are available.

### **Defending a Strongpoint**

To create a strongpoint, the light infantry battalion requires either a lot of time or a lot of engineer assets. The ideal solution is both. A commander should position his strongpoints to give the enemy only two choices: bypass the strongpoint in the direction the commander wishes him to go, or attack the strongpoint. The unit defending the strongpoint must be prepared to fight on a 360-degree front.

If time and resources permit, alternate or supplementary positions for all units should be dug to standard with connecting trenches between them. With trenches, even "crawling ones," the light infantry commander has some capability to reposition forces within the strongpoint. All AT assets should rehearse moving from one side of the strongpoint to the other to shoot the enemy if he attempts to bypass it.



## Retrograde Operations

During retrograde operations, the role of light infantry is similar to that of a rear operations tactical combat force. It ensures that enemy, partisan, or airmobile assaults cannot close choke points along the brigades avenue of retrograde. As the enemy advances, the light unit seeks to ensure that the delaying armored forces route of movement remains clear.

## SECTION III. LIGHT AND ARMORED OPERATIONS

Employing an armored brigade with a light division can be a combat power multiplier. Light division and armored brigade operations effectively use the infantry divisions ability to operate in restrictive terrain, such as urban areas, forests, and mountains. The light and armored force should be mutually supporting, based on the commanders concept of employment, to ensure assets of both forces are integrated and synchronized. This section discusses the

considerations in planning and executing tactical operations of a light division with an armored brigade under OPCON relationship.

### TASK ORGANIZATION CONSIDERATIONS

Cross attachment of an armored brigade to an infantry division must be thoroughly considered. Corps planners must consider the capabilities and limitations of the combined force with respect to the:

- Size and mission of the force.
- Location of the deploying unit in relation to its parent unit.
- Support capabilities of the deploying force.
- Source of support for the deploying force.
- Self-sustaining capability of the armored force.

Options for task organizing an armored brigade to support an infantry division are, in priority:

- Separate armored brigade OPCON to an infantry division.
- Armored divisional brigade OPCON to an infantry division.

The recommended command relationship for an armored brigade supporting a light division is OPCON. Under this relationship, the division is not burdened with the armored and mechanized brigades logistics support. The division staff must plan for the increased requirements for terrain, movements in the rear area, and for the increased logistics support structure.

When requesting the support of an armored brigade, the division should routinely expect to receive a brigade task-organized. The armored division provides additional assets to the armored brigade within its capability. Additional division assets are three heavy expanded mobile tactical trucks (2,500-gallon tankers), two MSEs nodes, and one MP platoon. This is the minimum essential organization required to support the infantry division. This is what the parent armored division should provide the armored brigade and still remain capable of conducting and supporting armored division operations. Normally, additional augmentation for the armored

brigade comes from corps if the parent armored division is committed.

## **EMPLOYMENT CONSIDERATIONS**

The purpose of employing light and armored forces together is to capitalize on the unique strengths of each type of force while minimizing its limitations. To accomplish this, both light division and armored brigade commanders must understand the capabilities and limitations of each force and synchronize all CS and CSS assets to accomplish the desired effects on the enemy.

Placing an armored brigade OPCON to an infantry division is a combat multiplier for the division only if three conditions are met. First, use of the armored brigade must support the division mission. Division commanders must ensure the TTPs used by their forces and the armored brigade are compatible. Artillery, engineer, air defense, intelligence, attack helicopters, signal, and divisional CSS assets must be properly coordinated with the armored brigade to support light and armored operations.

Second, the armored brigade must bring its own logistics support. The armored brigade should be under an OPCON relationship to the light division. This relieves the light division of supporting the brigade. The infantry divisions FSBs are not able to support the armored brigade with fuel, ammunition, and repairs.

Third, the light infantry commander must remember the differences in tempo between light and armored forces and use these differences to his advantage. Differences in mobility change the way the infantry division fights. The armored brigades mobility allows it to move quickly. It depends on mobility and firepower to survive. Integration of speed and mobility is vital when conducting operations as a combined light and armored force.

## **CAPABILITIES AND LIMITATIONS**

The employment of a mixed force must be based on sound METT-T analysis. By maximizing capabilities and minimizing limitations, commanders can effectively integrate armored and light forces. A discussion of capabilities for armored forces and considerations for minimizing limitations when OPCON to a light infantry division follows.

### **Armored Force Capabilities**

Specifically, armored forces can operate as attack or counterattack forces and accomplish rapid movement in exploitations and pursuits. The armored force provides the infantry division the following capabilities:

- Seize terrain and penetrate or envelop enemy defenses or strongpoints.
- Conduct defensive operations by dispersing over great distances and by concentrating rapidly. They can also defend from strongpoints.
- Rapidly exploit success in the offense or defense, including the effects of nuclear, chemical, and conventional fires.
- Conduct delaying actions against larger enemy armored forces.

- Conduct security missions.
- Provide organic air defense against low-altitude hostile aircraft.

## **Considerations to Offset Armored Force Limitations**

Armored forces depend mainly on radio communications. This makes them vulnerable to radio electronic combat. Because of this, the armored brigade commander must ensure all subordinate commanders understand the higher commanders intent, doctrine, drills, and control measures for an operation. This ensures execution of plans when radio communications are disrupted from jamming or inoperable systems.

Armored forces have a high consumption rate of supply items, especially Classes III, V, and IX. Anticipation of these supply needs, integration of supply assets into the BSA at optimum times, and extensive use of logistics packages can reduce this burden on the light division. The brigade LO must ensure logistical support issues are addressed by the light division during planning.

Armored forces are vulnerable to antiarmor weapons and mines. Proper integration of dismounted infantry, use of FS assets, terrain driving, and extensive reconnaissance to locate and target enemy antiarmor positions and minefields reduce this vulnerability. Armored brigade mobility considerations must be integrated into the R&S plan of the light infantry division. The brigade S2 and S3 must review the divisions R&S plan to ensure integration of assets support armored force maneuver.

Because of the limited number of dismounts available in armored units, these units have difficulty defending positions against enemy infantry. When armored forces are positioned to defend on mechanized avenues of approach, the brigade should request augmentation with light infantry to reduce this vulnerability.

The armored brigade brings extra capabilities to the infantry division - armored protection, mobility, and firepower. The light division can use these capabilities to exploit success or reinforce the defense. The integration and synchronization of these capabilities can overwhelm a numerically superior force. When the light division is planning, the brigade commander and staff must ensure that the armored brigade and subordinate units are employed to exploit their capabilities.

## **TACTICAL EMPLOYMENT**

Assigning complementary missions to each force is the guiding principle for employing armored and light forces. The infantry division can expect to conduct tactical operations with armored units in all combat environments. The most common employment of armored forces by infantry divisions occurs when terrain and vegetation favor use of infantry, but an enemy may have small numbers of motorized, mechanized, or armored units.

Under proper circumstances, the infantry division receives one armored brigade from the corps. The brigade normally comes with additional task-organized maintenance, Class III, and Class IV.

The armored and light force can conduct a multitude of missions and tasks ( see [FM 71-100](#)). Examples of offensive and defensive missions and tasks are as follows:

- Light and armored operations in the offense include light missions of movement to contact, attack, and raid that are supported by armored tasks such as reserve, overwatch, counterattack, attack by fire, covering force, and deception. When the infantry division is conducting an attack, the armored force can support it as a mobile reserve to conduct counterattacks.
- Light and armored operations in the defense include light missions of defend, delay, and withdrawal. Armored tasks to support these missions include counterattack, reserve, covering force, overwatch, reinforce, and DLIC.

## PLANNING CONSIDERATIONS

The effective employment of a force with both armored and light elements requires detailed planning. Mutual planning, development of orders, rehearsals, and coordination between respective commanders and staffs must take place. Critical areas in the planning process include the command and support relationship, composition of CS and CSS, and effective use of terrain. A common SOP or an understanding of each units SOP is essential to synchronizing all combat, CS, and CSS units. A discussion of specific planning considerations follows.

### Intelligence

Detailed intelligence is critical to the success of light and armored force integration. Intelligence requirements for each force must be understood and integrated into the IPB process. The brigade S2 coordinates with the light division G2 to ensure the IPB products developed by the light division include an armored force orientation. Armored forces orient on unit concentrations, tank and AT locations, counterattack routes, armor obstacles, EAs, and artillery and air defense locations. Both forces PIR and DSTs must be combined, compared, and explained to both staffs in detail. The R&S plans of both units should be jointly developed and coordinated. The use of the armored brigades long-range observation and direct-fire systems must be integrated into the light divisions R&S plan.

### Maneuver

When defending or attacking, elements of an armored or light force can fix the enemy while the armored force attacks. In either case, the armored brigade requires adequate terrain and space to maneuver. The brigade S3, XO, or commander must ensure the following considerations are observed by the light division G3 cell during planning:

- Armored forces are best suited to operate in open and mixed terrain. Mobility and organic firepower make it easier for mechanized and armored forces to disperse and rapidly concentrate at the decisive point on the battlefield.
- The difference in operational tempo between light and armored units must always be a consideration, including the scheduling of rehearsals. It may dictate an early rehearsal time to allow both forces to take part.
- Both units' direct and indirect fires should mutually support each other. The armored

brigade can use its long-range direct fires to provide suppression and overwatch fires for the light division. The light division should plan to use the armored forces long-range antiarmor fires. In light and armored operations, differences in equipment may dictate different techniques in marking TRPs.

## **Fire Support**

The armored force must recognize that dismounted infantry operations focus on stealth, which could preclude preparation and other preliminary fires. Planners must integrate available FS for each force into the fire plan.

Division planners must be familiar with the organization, capabilities, and limitations of all forces involved. It is likely that the armored brigade's DS FA battalion will support the light division elements if they are sent out early. The decision by the light division to use the armored brigade's DS FA battalion occurs from initial IPB, intelligence gathered from higher collection assets, or a quick FS mission analysis. Normally this results in a preliminary division target list and scheme of fires, and a WO issued to the DS FA battalion until the formal field artillery support plan (FASP) can be developed. This allocation of FS assets may require moving a single 155-mm battery forward enough to reach on and beyond the objective of an element of the light division. Radar critical friendly zones should be planned in depth along the light force elements route, on all LZs, points of penetration, and attack positions to protect the light force as it moves to its objective. A 155-mm indirect fire system may be assigned to fire any targets generated by the radar zones.

During planning and preparation phases, a liaison team, normally the brigade FSO, facilitates the synchronization of FS. Restrictive fire control measures must be jointly developed and understood by everyone. Take special care when planning potentially lethal dud-producing munitions. Dual-purpose improved conventional munitions (DPICM) and FASCAM restrict the light units ability to maneuver. When these munitions are planned, the brigade FSO must coordinate with the light division to ensure no future actions by the light division are hindered.

During the planning phase of an operation, it is important to have the DIVARTY commander make face-to-face coordination and rehearse the plan with the DS FA battalion commander. This ensures the shooters and executors understand what the other expects and better integrates the light forces fire plan. The brigade commander and staff must be knowledgeable of the light division FS plan to ensure FS is available to the armored brigade when maneuvering.

## **Air Defense**

Commanders should direct their attention to ADA resupply requirements. Centralized planning is required to orchestrate ADA support for light and armored operations. The division can consolidate ADA units to provide denser coverage around critical targets. Armored forces provide the light division excellent coverage with their enhanced ADA capability and can carry the resupply of Stinger missiles for light Stinger units.

## **Mobility and Survivability**



The division G3 and engineer must develop a common obstacle plan, and consider using light infantry to clear choke points and obstacles for the armored force. Division planners must also consider weapon disparities in range, their impact on prepared obstacles, and use of terrain during battle handoff to an armored force. The priorities of mobility and survivability may be different for each force. The light force must be prepared to take full advantage of armored force engineer assets. When light forces breach obstacles for armored forces, planners must ensure the breach is large enough for the widest vehicle in the operation. The armored brigades engineer battalion commander must plan to augment the light division to conduct survivability and countermobility operations.

### ***Nuclear, Biological, and Chemical***

The light division is more limited in its decontamination capabilities than the armored force. The mobility of the light division is affected by the need for soldiers to carry protective clothing in addition to their standard load. The use of armored unit vehicles may be planned to assist in transporting NBC equipment. An armored brigade has expedient devices and water-haul capabilities that can offset the light divisions shortfalls. The brigade staff must ensure this support task is understood early in the planning process. The brigade chemical officer must analyze this requirement and ensure the brigade remains capable of protecting its units.

### **Combat Service Support**

CSS requires an understanding of the current, ongoing, and forecasted needs of both forces. Commanders must be able to cross-level CSS to support overall support requirements and be prepared to receive CSS augmentation from the corps support group. The division can coordinate use of transportation assets of the armored force to facilitate this cross leveling. The light division emphasizes replacing parts; the armored unit emphasizes repair. This requires continuous attention throughout the operation. The armored force performs maintenance continuously. The light commander must understand this requirement and provide an opportunity for such maintenance. The armored brigade may be required to provide light division elements with limited water, resupply, and casualty evacuation assistance.

### **Command and Control**

The corps headquarters defines the authority and responsibility within the light and armored force by designating command relationships. The armored and light force must exchange LOs. The planning process is jointly conducted and the development of orders and overlays is coordinated. Confirmation briefs are required at brigade level of combat, CS, and CSS units to ensure timing, synchronization, and understanding of the commanders intent.

Standard operational terms and symbols must be used and codes, recognition signals, and SOIs exchanged. The directing headquarters may need to set up a retrans site to compensate for the shorter range of the light units communications equipment. The brigade staff must ensure communications nodes are established to provide continuous communications among all command and staff elements within the brigade and higher headquarters.

## SECTION IV. SPECIAL OPERATIONS FORCES

### GENERAL

Brigades and battalions may operate near or with SOF. The command relationship is determined by the higher headquarters. SOF personnel normally provide a liaison team (a special operations command and control element) to coordinate with other units, usually at brigade level, and to control SOF within the AO. Most often, SOF personnel precede conventional forces into the AO.

### Capabilities

SOF can:

- Infiltrate and exfiltrate specified operational areas by air, land, or sea.
- Operate in remote areas and nonpermissive environments for extended periods with little external direction and support.
- Organize, equip, train, advise, and direct indigenous military and paramilitary units and personnel.
- Train, advise, and assist US and allied forces.
- Conduct R&S and target acquisition.
- Conduct direct-action operations, including raids, ambushes, sniping, emplacement of mines and other munitions, and terminal guidance for precision-guided missions.
- Conduct rescue and recovery operations.

### Limitations

SOF:

- Depend on the resources of the theater Army to support and sustain operations.
- Cannot conduct conventional combined arms operations on a unilateral basis. Their capabilities are limited to advising or directing indigenous military forces conducting this type of operation.
- Do not have organic combined arms capability. They habitually require support or attachment of other combat, CS, and CSS assets.
- Cannot provide security for operational bases without severely degrading operational and support capabilities.

### EMPLOYMENT CONSIDERATIONS

The following are pertinent considerations, by BOS, for the employment of SOF during the combat operations phase of CONOPS.

### Intelligence

Special reconnaissance gives the CINC, joint task force, or Army force commander the ability

to conduct HUMINT collection in denied areas at the operational and strategic level. For example, the special forces MI team can provide information on critical enemy command, control, and communications nodes.

CA assets can provide timely intelligence to the commander through interviews with refugees.

## **Maneuver**

Special forces and Ranger units, under the command and control of SOF headquarters, can conduct direct-action missions against HVTs, such as critical enemy command, control, and communication nodes.

Audiovisual PSYOP teams can aid the tactical commanders deception plan.

SOF can improve host-nation military forces through training and advisory programs.

## **Fire Support**

Special reconnaissance or direct-action teams can conduct terminal guidance operations for high-performance aircraft against HVTs using laser target designators or beacons.

Special reconnaissance or direct-action teams can provide nonattributable target acquisition and adjustment of deep fires in deep operations.

Special operation or direct-action teams can provide up-to-date target intelligence and confirmation needed to validate HVT matrices. It is important to integrate them into the R&S plan.

Special operations command and control element coordinates with fire control elements to prevent fratricide of SOF elements in the conventional units area of influence.

SOF can conduct training to improve host-nation FS assets.

## **Air Defense**

SOF participate in JSEAD operations by reporting neutralized enemy ADA sites.

## **Combat Service Support**

SOF assist in the identification of and coordination for host-nation assets.

CA elements assist in the implementation of population resource control measures.

SOF assist in refugee control measures.

## **Command and Control**

SOF direct-action units remain under the control of an SOF headquarters and establish a liaison element with the conventional headquarters to provide time-sensitive information.

Direct-action units can be placed in GS or DS of a conventional unit. In that case, the SOF unit

headquarters would be collocated with the conventional units headquarters. This allows the flow of timely information and facilitates planning for and integration of the SOF unit into the conventional units operations.

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# FM 71-3

## The Armored and Mechanized Infantry Brigade

### APPENDIX D MOVEMENT AND ASSEMBLY AREAS

Most brigade operations will commence or terminate in an assembly area. Consequently, the brigade can plan on conducting frequent tactical movement into and out of assembly areas on a routine basis.

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Section I.	<a href="#">Tactical Road March</a>
Section II.	<a href="#">Assembly Areas</a>

## SECTION I. TACTICAL ROAD MARCH

### GENERAL

The tactical road march is a unit move in a combat-ready posture normally conducted in the combat zone. Enemy contact is possible either during the march or soon after arrival at the unit's destination. Units normally move by tactical road marches to assembly areas to prepare for combat operations. The S3 is responsible for planning tactical road marches.

### DEFINITIONS

The following paragraphs are definitions used in movement and tactical road marches.

#### Close Column

Vehicles are spaced approximately 25 meters apart.

#### Open Column

Vehicles are spaced 50 to 100 meters apart. Normally used during daylight, open column can be used at night with proper night-vision equipment.

#### Infiltration

Vehicles are dispatched individually, in small groups, or at irregular intervals at a rate that keeps the traffic density down and prevents undue massing of vehicles.

#### March Column

A march column consists of all elements using the same route for a single movement under control of a single commander. The column is normally brigade-size and is composed of three elements. The head is the first vehicle of t



## **Serial**

A serial is a major subdivision of a march column and is normally battalion-size.

## **March Unit**

A march unit is a major subdivision of a serial and is normally company-size.

## **Reconnaissance Party**

The reconnaissance party conducts route reconnaissance of movement routes to determine travel times, bridge and underpass capacities, and trafficability. It identifies critical points, obstacles, and (if there is enough time) alternate routes.

## **Quartermaster Party (Advance Party)**

The quartermaster party reconnoiters the new assembly area and guides march elements to and into the new area.

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# **SECTION II. ASSEMBLY AREAS**

## **GENERAL**

An assembly area is a position in which a force prepares or regroups for further action. Units in assembly areas execute maintenance, resupply, and personnel actions to maintain the combat power of the force. Task organization and reorganization of the force, the development and issuance of tactical orders and plans, coordination with other units or higher headquarters, reconnaissance, training, and rehearsals may also be conducted. Units occupying assembly areas employ passive and/or active OPSEC measures to deny enemy intelligence any indicators of friendly plans and intentions, force composition, or unit identity and locations consistent with the higher commander's deception plan. Designation and occupation of an assembly area may be directed by a higher headquarters or by the unit commander such as during relief or withdrawal operations or during unit movements. Assembly area planning, occupation, and departure are difficult and time consuming. Performed correctly, they can aid in structuring the unit for timely execution of combat operations. Done incorrectly, they confuse and disorganize a unit before it ever makes contact with the enemy.

## **PLANNING CONSIDERATIONS**

Assembly areas are typically outside the range of enemy medium artillery fires, generally no closer than 15 kilometers from the LC. Examples of assembly areas include locations occupied by units designated as reserves, by units after completing a rearward passage of lines, temporarily by units during movement, and by units during reconstitution. Brigades typically occupy assembly areas alone, although their parent divisions may be in the same general geographic area, as when the division is in the corps rear area as the corps reserve. Assembly areas ideally provide

- Concealment from air and ground observation.
- Cover from direct fire.
- Terrain masking of electromagnetic signal signature.

- Sufficient area for the dispersion of subunits and their vehicles consistent with the tactical situation, both enemy and friendly.
- Buildings for unit trains, maintenance operations, and command and control facilities (TOC/TAC CP/rear CP).
- Suitable entrances, exits, and internal routes. Optimally, at least one all-weather paved surface road transits the assembly area and connects to the MSR in use by the next higher headquarters.
- Terrain that allows the observation of ground and air avenues of approach into the assembly area.
- Good drainage and soil conditions that support unit vehicle movement.

Units in tactical assembly areas are typically preparing to move forward to execute a forward passage of lines followed by offensive operations or have been assigned a reserve mission by their higher commander.

## **ORGANIZATION OF THE BRIGADE ASSEMBLY AREA**

### **Methods**

Brigade assembly areas may be organized using one of two methods.

#### ***Method One***

The brigade may assign sectors to subordinate maneuver battalions and require them to tie-in their fires with adjacent battalions. In this method the brigade command and control facilities, brigade HHC, and most CS assets are located near the center of the assembly area. This technique essentially configures the brigade in a perimeter defense, with maneuver battalions deployed along the entire perimeter and oriented outwards (Figure D-1).

#### ***Method Two***

The brigade may assign separate individual assembly areas to subordinate elements. In this method, subordinate units maintain their own 360-degree security. Areas between subunits should be secured through visual and electronic surveillance or patrols. Brigade command and control facilities, the HHC, and the bulk of CS assets occupy positions central to the outlying maneuver battalions. FAAD units may need to collocate with outlying maneuver units or establish separate firing positions around the brigade to provide adequate air defense. This is the most typical organization for the brigade assembly areas (see Figure D-2).

When the brigade is in the corps rear or division rear and is not designated as a reserve, field trains of the brigade's subordinate battalions are collocated with their parent unit and the BSA is not established. In that case, the FSB moves and establishes a separate assembly area like other battalions of the brigade.

When the brigade moves forward of the division rear or is in the division rear as a reserve, the BSA is formed by combining the battalion field trains with the FSB. In either case, the FSB/BSA is positioned to the rear of the supported battalions. This positioning prevents the extensive

traffic in and out of the FSB/BSA from interfering with battalion assembly area activities. It also allows the battalions to move forward and deploy without having to maneuver through or around the BSA/FSB. The location of the FSB/BSA in relation to supported battalions depends on the rear area threat, mission of the brigade, proximity to division/corps MSR, and the ability of the BSA/FSB to support the battalions, given the distance between them. Other information concerning the positioning of the BSA/FSB is in [Chapter 8](#).

## **QUARTERING PARTY**

A quartering party is a group of unit representatives dispatched to a probable new site of operations in advance of the main body to secure, reconnoiter, and organize an area prior to the main body's arrival and occupation. Unit SOPs establish the exact composition of the quartering party and its transportation, security, communications equipment, and specific duties. Quartering parties typically reconnoiter and confirm the route and tentative locations for their parent elements selected from map reconnaissance. Quartering parties also usually act as a liaison between their parent headquarters and the quartering party of their higher headquarters to change unit locations within the assembly area based on the results of their reconnaissance.

In organizing for the movement to and occupation of a tactical assembly area, the brigade headquarters does not employ a quartering party that includes subunit representatives. The brigade HHC and TOC organize and dispatch a single quartering party to confirm the tentative locations for the HHC support elements and the new brigade TOC location. If the brigade moves to the assembly area at a later time, the brigade HHC/TOC quartering party returns to the brigade's current location after completion of a reconnaissance of the area. In this case, the quartering party may not act in a liaison capacity, and subunit requests for changes to the assembly area plan are resolved after returning to the brigade's present position.

## **OCCUPATION OF THE ASSEMBLY AREA**

Units position themselves in assembly areas IAW their parent unit's plan. Units are typically guided into position by their quartering parties. Occupation is accomplished smoothly from the march without halting or bunching of units at the RP.

Units normally establish routes and separate SPs/RPs for march elements that proceed from the march column's route or RP toward the march units' assembly area positions. This technique clears the route quickly, maintains march unit command and control, and prevents bunching of units at the march column RP. March units may follow a similar procedure.

## **BRIGADE ACTIONS IN THE ASSEMBLY AREA**

All actions in the assembly area are focused on preparing the unit for future operations. Actions most commonly associated with assembly area activities include resupply, personnel replacement, maintenance, reorganization, rest, and planning future operations.

The brigade commander prioritizes the actions to be taken by subordinate units in the assembly area and allocates resources to accomplish these tasks. Resources are prioritized by the

commander. Priorities are assigned based on his estimate of the situation, which is summed up in the factors of METT-T. Since occupation of the assembly area is done in preparation for future combat, the commander's METT-T analysis considers not only the current and projected status of the unit but also anticipated combat missions the brigade may execute.

The brigade commander and staff execute staff planning and TLPs to prepare the brigade for its next mission and to produce and disseminate a feasible, coherent tactical plan that accomplishes the brigade's mission within the framework of the higher commander's intent. Communications and liaison with higher, lower, and adjacent units are maintained. Additional planning and coordination for contingency plans may be conducted. Brigade CP elements are afforded time and resources to prepare for the next mission.

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# FM 71-3

## The Armored and Mechanized Infantry Brigade

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### APPENDIX E DIGITIZATION OF THE COMBINED ARMS BRIGADE

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This appendix provides the conceptual underpinnings of digital warfighting at the brigade level. It is forward reaching in a number of areas. This appendix describes the potential of enhanced tactics, systems, and organizations to increasing lethality, tempo, and survivability. This appendix also describes characteristics of a flexible battlefield framework, where forces are arrayed in a noncontiguous and asymmetrical manner. The enabling means of this new style of warfighting is the enhancement of the flow of relevant combat information through digital networking.

The term "digitized" is used throughout this appendix to refer to fully-modernized units possessing digital command and control systems. Digitized units addressed in this appendix contain the full suite of Force XXI legacy systems, including:

- The M1A2 Abrams.
- The M2A3 BFV.
- The BSFV.
- The Avenger.
- The command and control vehicle (C2V).
- The Army battle command system (ABCS).
- ASAS.
- The UAV.
- Enhanced mortar systems.
- The Paladin/Crusader artillery system.
- MLRS and improved firefinder system.
- Intelligent minefield system (wide area munition [WAM]).

The digitized brigade described is composed of forces equipped with the most sophisticated automated command and control systems available. Significant enhancements in information sharing and management, among and within combat units, create conditions to improve TTPs. The digital flow of information on the battlefield results in an exponential increase in situation awareness or the ability to see the terrain, enemy, and friendly forces. Given this capability, tactical units may organize and employ themselves differently to optimize this advantage over potential adversaries. This same capability enables friendly commanders to possess an unprecedented level of control over battlefield activities both friendly and enemy.



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## SECTION I. INTRODUCTION TO DIGITIZATION

### GENERAL

Digitization of the Army provides the combined arms commander and his staff the capability to effectively plan, coordinate, and direct the battle. This capability is derived from several digital systems that allow the entire organization to rapidly share information. These digital systems operate within the ABCS.

### ARMY BATTLE COMMAND SYSTEM

The exact nature and scope of future operations cannot be predetermined. Therefore, the ABCS must be flexible to meet the full range of potential mission requirements. One aspect of this flexibility is that traditional allocations of functions to specific echelons are not static. As an example, commanders at echelons as low as battalion may be in the role of a joint task force commander in a humanitarian aid or peacekeeping mission in an underdeveloped country. In this role, they need functionality and connectivity to systems as associated with the theater commander. Another aspect driving this flexibility is the need to functionally reconfigure individual ABCS workstations as operations transition from one phase to another or as the roles and responsibilities of individuals and organizations change.

The ABCS consists of the commander, staff, doctrine, procedures and tools used to command and control forces on the tactical battlefield. The system supports both the exercise of command and imposition of control of the combined arms team. The ABCS supports the command and control processes across the range of military operations. It allows the commander and staff to:

- Collect and organize large amounts of information.
- Combine information from multiple sources to create more complete and useful information.
- Process information to analyze trends, detect unusual activities, or predict a future situation.
- Develop COA based on situational factors.
- Exchange information efficiently among and within CPs on the battlefield.
- Present information as graphic displays and textual summaries.

The ABCS provides automation support to commanders and their staff at each cell based on the mission and phase of operations. ABCS provides seamless connectivity from the tactical level to the national command authority using Army, Joint, and Allied standard communications. ABCS will be used regularly within garrison, during redeployment, and in the field to maintain the soldiers' proficiency at the level required to respond to the broad range of potential missions. The ABCS is composed of the following components.

### **Army Global Command and Control System**

The AGCCS is the Army component of the global command and control system (GCCS). It will be built from applications developed by the Army worldwide military command and control system (WWMCCS), Army worldwide information system (AWIS), the standard theater Army command and control system (STACCS), and the combat service support control system for echelons above corps (CSSCS-EAC). AGCCS will provide a suite of modular applications to support logistics, medical, personnel, theater Army special operations, mobilization and deployment, Army status of readiness and training, transportation asset management, and others.

### **Army Tactical Command and Control System**

The Army tactical command and control system (ATCCS) is the integration of five battlefield functional area command and control systems (BFACS), providing situational information and decision support to commanders and staffs in the execution of the operational/tactical battle at corps and below. Within this integration of systems, the force level data base first takes form at the battalion to meet the tactical commanders requirements for common picture and situational awareness. The BFACSS are heavily oriented toward combat operations.

### **Force XXI Battle Command - Brigade and Below**

The Force XXI battle command brigade and below (FBCB2 ) is both a system and a concept to be used by combat, CS, and CSS units across all BOSs while performing missions through the operational continuum at the tactical level. FBCB2 is a battlefield, battle command information support system supported by existing and emerging communications, sensors, and electrical power sources.

The FBCB2 is the implementation of information age technology providing increased battlefield operational capabilities. When combined with changes in doctrine and organizational design made possible by these technologies and placed in the hands of soldiers/leaders who are trained in their use, FBCB2 provides increased battlefield operational capability. Battle command in a digitized brigade requires developing new initiatives across doctrine, training, leader development, organizations, and materiel to manage information resources achieving the maximum benefits for tactical operations. FBCB2 will provide horizontal and vertical integration of the data and information generation and processing capabilities of individual soldiers as well as weapons, sensors, and support platforms. As a component of ABCS, the FBCB2 will interoperate with battlefield automated systems (BAS) in compliance with GCCS and all appropriate BASs in common operating systems as specified by GCCS. FBCB2 must interoperate with and exchange information with all ABCS battlefield functional areas (BFA).

## SECTION II. DIGITIZED DOCTRINE AND TRAINING

With the publication of FM 100-5 in June 1993, a new typology, or framework for expressing tactical doctrine, was born. This new framework is termed "capability-based" and differs from the threat-based doctrine of Air Land Battle. The significant characteristic of capabilities-based doctrine is that tactical procedures are not optimized against one specific threat. Instead, tactical procedures are where they can be applied to varying threats and differing battlefield circumstances. Capability-based doctrine provides TTP as a set of common decision factors to assist in thinking and deciding upon battle actions.

Another significant distinction of capability-based doctrine is its complementary relationship with the commanders intent. Capability-based TTP serve as *implementing* actions taken to execute the intent of the unit commander. As such, digital operations are distinguished from conventional operations in that they place a *greater* emphasis on the commanders intent. This distinction is matched by the digital communications capability of the brigade.

This appendix uses the capability-based typology. In an effort to improve the clarity of expressing new concepts and TTP, comparisons are often used between conventionally-equipped and digitally-equipped units. Remember that digital units equate to the full suite of capabilities, not solely its command and control enhancements. Additionally, the coexistence of embedded and applique (bolt-on) digital systems within the Army today requires TTP to focus on general functionality and capabilities, since procedures between the two differ.

The objective of the capability-based doctrine development process is to publish refined TTP *parallel* to system and software developments. Like the commander's intent, unit TSOPs also increase in importance among digitally-equipped units. Digitized units are required to use their TSOPs as instruments to integrate new systems into their organization. Furthermore, unit TSOPs serve as *bridges* between employing individual systems and fighting the unit as a whole.

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## SECTION III. DIGITIZATION OF THE MOUNTED COMBINED ARMS BRIGADE

The digitized brigade possesses an increased capability to achieve success across the entire range of military operations. From large-scale combat operations to national assistance and disaster relief, the digitized brigade will have an increased capability to deliver combat power in any environment.

The digitized brigade provides unique capabilities that are distinctly different from its conventional predecessor. Emerging capabilities provide a new warfighting facet to commanders at both the tactical and operational levels. This section addresses new capabilities and limitations in generic terms. Since the development and fielding of new and enhanced systems are ongoing and dynamic, the specific characteristics of emerging systems will not be discussed in depth.

## CHARACTERISTICS

The digitized brigade conducts precision mounted engagements and battles during conflict and war, and various activities during OOTW. The digitized brigade achieves tactical, operational, and in some cases, strategic objectives as part of a larger force. The brigade is uniquely capable of conducting continuous mobile operations at a high tempo with great lethality and survivability that inflict decisive effects upon an adversary.

As the building block of modular combat power, the digitized brigade conducts operations that entail the application of combat power from mobile weapon and support system platforms in a way that destroys the enemy, simultaneously in depth and decisively (ground and aerial). Embedded in these systems is the capability to plan and rehearse on the move and to more rapidly mass effects anywhere on the battlefield. They provide rapid, continuous operations (day or night ) at a high tempo. These systems also provide a common, shared situational awareness that enables commanders and staffs to make more informed decisions faster. These operations rely on mechanization and technology during their employment to maximize mobility, firepower, protection, and control. Digitized mounted forces are characterized by the ability to project, deliver, and sustain combat power in a rapid, highly lethal, and survivable manner. These forces conduct reconnaissance while mounted and dismounted, and close with and defeat enemy forces. The digitized brigade possesses sufficient combat power and leadership to control large areas of terrain in order to dominate adversaries within hostile, land-based environments during war and OOTW.

The digitized brigade is more than a technologically advanced organization. Enhancements made to TTP, organizational design, and innovative training methods are equally important to the collective effectiveness of the brigade as the technological systems it possesses. Technology is but one factor in increasing the combat potential of the brigade as a tactical organization. Technological change serves as an *enabler* of both enduring and new capabilities which the leadership of the US Army desires its land combat force to possess for the twenty-first century.

## CORE FUNCTIONS

The digitized brigades organization, equipment, and training enable it to perform the functions outlined in the following paragraphs for the tactical and operational commander.

### **Project, Deploy, and Redeploy Mounted Combat Power**

The digitized brigade is a strategically mobile force that can swiftly deploy in response to national command authority (NCA) directives. The brigade deploys in a streamlined fashion as delineated in FM 100-17, the Army's keystone manual for doctrine on deployment, utilizing the joint operation planning and execution system (JOPES) and the time-phased force development process (time-phased force and deployment data [TPFDD] and time-phased force and deployment logistics [TPFDL]). Theater onward movement is a complex, transitional phase of the deployment process. Timely transition from theater arrival to establishing a tactical posture is critical in an environment where adversaries attempt to prevent massive troop buildup in their region. The digitized brigade rapidly merges its soldiers and equipment,

reconfigures and tailors units, conducts marshaling and staging area activities, and moves to tactical assembly areas during this critical phase. The digitized brigade achieves this through links to CSS systems that allow it to prepare faster by sharing and updating information and data bases while in transit. The digitized brigade conducts rapid recovery and redeployment upon mission accomplishment.

## **Conduct Decisive Operations**

The digitized brigade performs combat operations to achieve decisive outcomes for the tactical and operational commander. Digitized brigades operate as part of a larger force to fight engagements and battles that defeat the adversary's will and destroy his means of resistance. Decisive operations are conducted at an accelerated tempo, and orchestrated in a near-simultaneous manner to deny the adversary options to counter friendly actions against him. These operations value the rapid defeat of enemy formations by the effects of dominating maneuver and firepower to achieve objectives quickly and with minimal casualties and collateral damage. The digitized brigade attacks and defends during decisive operations.

## **Conduct Security Operations**

Upon conflict termination, the digitized brigade conducts post-conflict operations. This period is characterized by residual combat activity still underway within the theater of operations. Various activities and missions are conducted during this period to restore order, reestablish host-nation infrastructure, organize and control buffer zones, and prepare for hand-over to peacekeeping forces. The digitized brigade possesses the versatility needed to accomplish critical tasks during this lethal transition period.

## **Conduct Information Operations**

The digitized brigade performs tactical operations for the *purpose* of gaining or denying information for the combatant commander. The digitized brigade is uniquely capable of performing tactical missions that achieve tactical, operational, or strategic outcomes for the purpose of determining enemy information capabilities as well as degrading these capabilities to establish friendly information superiority. The digitized brigade performs information operations to support the combatant commander in setting the conditions for decisive operations. These operations and activities include tactical deception, EW, R&S, target acquisition, OPSEC and physical destruction of enemy information systems.

## **Conduct Operations Other Than War**

The digitized brigade is capable of conducting various OOTW activities. The modular command and control and logistics systems of the brigade make it an attractive force package to plug into ad hoc task organizations commonly employed in these operations. The specific roles and missions of the mounted force in OOTW are still maturing.

## **CAPABILITIES**

The digitized brigade possesses new and enhanced capabilities separate from its predecessor.



In addition to those of the conventional brigade, the digitized force possesses the capabilities outlined in the following paragraphs.

## **Enhanced Command, Control, and Communications**

The digitized brigade exploits its automated C3 system to maintain an increased level of situational awareness and to make more informed decisions regarding tactical employment. Automated information functions allow better staff integration and synchronization of combat multipliers with maneuver forces during the conduct of combined arms operations. C3 enhancements make the digitized force more adaptive to interface with differing higher headquarters, such as a parent division, other divisions, a corps headquarters, or a joint task force headquarters. The employment of ASAS provides a revolutionary new capability for tactical commanders to access and use national and theater intelligence products.

Space and aerial-based communication systems provide a significant communication enhancement to the digitized brigade. It greatly extends the effective ranges of vehicular communications systems, which facilitates tactical dispersion without loss of control. The use of local and wide area networks and combat net radio enhances the tactical organizations flow of information and expands the level of control of the commander.

## **Fights Tactical Engagements**

The digitized brigade is capable of conducting decisive engagements at an increased operational tempo. The brigade transitions between missions at an accelerated rate, to create a momentum that enemy forces cannot contend with. The digitized brigade exploits its capability of continuous, rapid operations to gain and maintain control of battlefield activities, time, and physical space.

The digitized brigade uses all its enhanced capabilities to maximize the effectiveness of its combat power at the decisive points on the battlefield. Technological, organizational, and procedural enhancements facilitate efficient use of combat multipliers, in a synchronous fashion, to create an overwhelming effect on the adversary. The brigade uses its enhanced C3 capability to better integrate joint assets into tactical operations.

## **Technological Superiority**

The digital brigade brings increased lethality to the modern battlefield. This recognition may serve as a viable deterrent in preventing escalation of future regional crises once a technological force is committed in theater. The presence of a technologically superior tactical force in a crisis theater may prevent a crisis from escalating to the level of combat, or buy time for political solutions to take effect. If escalation occurs, the digitized force is poised to rapidly conduct tactical operations to meet military objectives.

## **Operational Maneuver**

The digitized brigade can conduct deep, independent maneuver to achieve operational objectives for the combatant commander. Enhanced mobility, situational awareness, and

protection capabilities enable the digitized brigade to maneuver to positions of operational or tactical advantage in depth. Once in position, the digitized brigade possesses sufficient protection and firepower to dominate the physical space for periods of time determined by its sustainment methods.

## **Influence Greater Volume Of Physical Space**

The digitized brigade is capable of influencing a larger volume of physical space than conventional units. Greater situational awareness of the tactical situation and environment allows the digitized brigade to operate at greater distances without loss of command and control. Greater dispersion facilitates control of a larger area of the battlefield, as well as denying an adversary the ability to determine friendly intentions by templating. The empowerment of subordinates caused by digitization makes subordinate tactical units more capable of independent action. Two factors that relate to the expansion of physical or battle space are the ability to *see* or *know* the environment and the *lethal reach* or *strike* range of the unit. The elements of *know* and *strike* are not the sole determinants of a commanders physical battle space.

## **Force Modularity**

The digitized brigade has the unique ability to tailor its organizational structure to meet mission demands without reduction in command and control and sustainment functions. The adaptive use of automated networks allows the digitized brigade to reconfigure itself in numerous variations without loss of situational awareness or force coherence. This pliability extends to the capability of operating under different headquarters. Commanders of the digitized brigade must consider human factors and the implications to leadership and cohesion when using this capability. The digitized brigade is more effective than conventional forces in integrating attached assets and systems into missions and operations which it is controlling.

## **Precision Movement and Maneuver**

The digitized brigade possesses significant enhancements in the area of precision navigation. Automated terrain analysis systems and improved terrain imagery products increase the brigades knowledge of the geographic environment. Global positioning systems (GPS) and position navigation systems embedded in weapons platforms enable the force to move with unprecedented precision. The results of this capability are:

- Increased effectiveness in synchronizing the movement and maneuver of forces.
- Hazard avoidance such as contaminants, obstacles, and refugees.
- Accurate battle reporting (location).
- Enhanced planning and engaging of targets.

When this capability is integrated with information and combined arms tactics, the digitized brigade possesses a precision maneuver capability unmatched by conventional mounted forces.

## **Enhanced Force Protection**

The digitized brigade is capable of employing multiple force protection measures to increase the survivability of the force. The digital battle command system provides the brigade with early warning of hostile activity and the means to respond. This enhanced command and control capability allows the brigade to maximize tactical dispersion for protection and to converge or mass when needed. This translates into a greater ability to achieve tactical deception and OPSEC. Additionally, the precision movement capability mentioned earlier reaps significant benefits in avoiding hazardous areas common to the modern battlefield and enhances its potential to achieve surprise during combat operations.

## **Lethality**

Preliminary simulation exercises and field trials demonstrate that digitized forces have greater means to turn *potential* combat power into *actual* combat power on the competitive battlefield. This capability is enabled primarily by situational awareness enhancements of seeing the enemy, friendly units, and the terrain. The FBCB2 system also gives the digitized force improved means to *execute* actions based on the enhanced situational awareness the unit shares. Because of these enhancements, digitized commanders can transfer a greater amount of potential combat power, particularly the *effects* of firepower, to actual decisive points (time and place) on the battlefield than non-digitized units.

## **Versatile Employment**

Future combat operations will be conducted within various battlefield frameworks at the operational and tactical levels. These frameworks will range from linear or *symmetrical* patterns to the nonlinear or *fluid*. The fluid battlefield framework poses significant challenges to conventional units in the areas of force protection, fratricide, command and control and sustainment. The enhancements made in these areas by digitization enable the brigade to better adapt and operate within the fluid environment.

## **WEAPON SYSTEMS**

### **Mounted Maneuver Platforms**

The mounted direct-fire maneuver platform system provides significant improvements in lethality, survivability and fightability required to defeat advanced threats. Improvements include a commanders independent thermal viewer, an independent commanders weapon station, position navigation equipment, a distributed data and power architecture, and a radio interface unit that allows the user to rapidly transfer situational data and overlays to compatible systems on the digital battlefield.

The lightly armored direct-fire maneuver platform provides cross-country mobility, mounted firepower, and protection from artillery and small-arms fire to mounted and cavalry operations, and support to dismounted operations. It also possesses the capability to interface with the other maneuver platforms on the digital battlefield. It will possess the following capabilities:

- Command and control and navigation software.

- Digital communications.
- Commanders independent thermal viewer.
- Combat identification system.
- Digital logistics reporting.

## **Line-of-Sight Antitank**

The line-of-sight antitank (LOSAT) system provides antitank fire to fix and destroy enemy armored formations. The LOSAT consists of a kinetic-energy missile (KEM) launcher mounted on an armored vehicle chassis. The key attraction of LOSAT is the tremendous overmatch lethality of the KEM that defeats all future predicted armored combat vehicles.

## **Indirect Fire Platform**

The indirect fire platform system provides the primary indirect FS to the digitized brigade. This system includes

- An on-board ballistic computer and navigation system.
- Secure radio communications.
- An improved cannon and gun mount.
- Automatic gun positioning.
- Automotive improvements.
- Improved ballistics.
- NBC protection.
- Drivers night sight capability.
- Built-in test equipment.

The indirect fire platform has improved responsiveness, survivability, lethality, and reliability.

## **Advanced Field Artillery Systems and Future Armored Resupply Vehicle**

The advanced field artillery systems (AFAS) and future armored resupply vehicle (FARV) are the Army's next generation indirect fire cannon and artillery systems for the mounted force. Together, these systems provide an overmatching firepower capability that will support the force commanders goal of dominating the maneuver battle. They incorporate advanced technologies to increase accuracy, rate of fire, survivability, and ammunition handling speed. These systems also decrease crew size.

## **Multiple Launch Rocket System**

The multiple launch rocket system (MLRS) is a free flight, area free, artillery rocket system that supplements cannon artillery fires by delivering large volumes of firepower in a short time against critical, time-sensitive targets. The MLRS accommodates the launching of a new family of munitions, including the Army TACMS.

## **Air Defense Platforms**

### ***Avenger***

The Avenger is a lightweight surface-to-air missile/gun weapon system mounted on a HMMWV. It is operated by a two-man crew for air defense in daylight or at night, and in clear or adverse weather conditions. The system incorporates an operators position with displays, fire control electronics, and the Stinger vehicle-mounted launcher.

### ***Bradley Stinger Fighting Vehicle***

The BSFV is a lethal weapons platform that enhances the firepower and survivability of air defense assets on the battlefield. The capabilities of BSFV mounted and dismounted weapons systems are designated to be used primarily in an air defense role. The Stinger is the primary air defense weapon in the BSFV. It is used during engagements against fixed-wing and rotary-wing targets. The 25-mm chain gun complements Stinger capabilities of the BSFV. When the Stinger team is dismounted, the 25-mm gun provides coverage for the Stinger teams dead space. The coaxial-mounted machine gun is used against air and ground targets.

### **Man-Portable Antitank System (Javelin)**

The man-portable antitank system provides high lethality against conventional and reactive armor. It will replace the Dragon. The Javelin consists of two major components: a reusable command and launch unit (CLU) and a missile sealed in a disposable launch tube assembly. The command launch capability incorporates an integrated day/night sight and provides target engagement capability in adverse weather and countermeasure environments. The CLU may be used in the stand-alone mode for battlefield surveillance and target detection. The system weighs less than 49 pounds and has a maximum range of 2,000 meters. The Javelin's key feature is its utilization of fire-and-forget technology.

### **The Dismounted Soldier**

The dismounted soldier is equipped with a comprehensive protective ensemble that will provide the individual soldier, whether mounted or dismounted, the best protection available from enemy fires, battlefield hazards, and the environment. It will enhance the individual warrior and small-unit operational effectiveness through a modular system that integrates miniature electronic components for command, control, and communications; computers; and intelligence. The system will also include the following:

- Head-mounted displays.
- Wide field of vision mobility sensors.
- Thermal sight with integrated eye-safe laser rangefinder and compass.
- Combat identification.
- Personal status monitor.
- Chemical agent sensors.
- Medical monitoring.



- Lightweight power sources for microclimatic conditioning.
- Small arms ballistic protection.
- Integrated chemical-biological respiratory protection.

## **INFORMATION SYSTEMS**

### **The Digital Battle Command System**

Information is the single most important ingredient in support of the commanders intent and the integration of combat functions in terms of time, space, and purpose. This overarching automated software communications system supports the digitized brigade with a seamless, streamlined, and simple to use information system. This system enhances battle command down to the individual soldier and weapon systems. It is capable of obtaining information from data bases both vertically and horizontally, without formally requesting that information through command channels. The commander has the capability to pull information from other data bases to keep current with the rapid changes of a dynamic battlefield. The proliferation of battlefield automation systems coupled with the tempo of operations necessitates the holistic integration of the digital battle command system as an integrated, interoperable seamless system. This system enhances the commanders ability to see a detailed picture of the battlefield, to maximize force survivability, and to facilitate integration of combat functions within the brigade organization. It also permits the communication of the commanders vision of the battlefield and facilitates the dissemination and understanding of the commanders intent.

Characteristics of this system include:

- On-the-move operations.
- Digital map capability.
- High throughput capability.
- Universal protocols.
- Modular capability.
- Still frame or video imagery capability.
- Redundancy.
- Universal platform integration capability.

### **Intelligence System**

The intelligence system will provide combat leaders the all source intelligence needed to view the battlefield and more effectively conduct the land battle. It is designed to operate in a joint environment across the spectrum of conflict. This intelligence system provides a tactically deployable automation and data processing capability in order to:

- Receive and correlate data from strategic and tactical intelligence sources/sensors.
- Produce enemy situation displays.
- Disseminate intelligence information.
- Nominate targets.

- Manage collection requirements.
- Provide OPSEC support.

## **Indirect Fires Data System**

The indirect fires data system is the multiservice automated FS command and control and communication system that satisfies the FS command and control operations requirements. This system provides integrated, automated support for the planning, coordination, and control of all FS assets (FA, mortars, CAS, NGF, attack helicopters, and offensive EW), execution of counterfire, interdiction, and suppression of enemy targets.

## **Forward Area Air Defense Command and Control System**

The FAAD command and control system provides automated assistance in the performance of FAAD operations, such as planning, early warning, positioning, and engagement. In addition, this system enhances the management of Army airspace. This comprehensive system consists of subsystems that are equipped with computers, displays, and voice and data communications equipment to aid accumulation, processing, and distribution of a correlated air picture and command, control, communications, and intelligence (C3I) data. Early warning is accomplished by receipt of air tracks from external sources such as the AWACS and HIMAD.

## **Command and Control Vehicle**

The C2V is a fully tracked, armored vehicle that ensures a mobile, responsive, and survivable command and control platform for the digitized brigade. The C2V provides command and control capabilities from battalion through corps level and will accommodate the overarching command and control software system.

## **Battle Command Vehicle**

The BCV solves the tactical problem of how to access battlefield information data systems to obtain critical intelligence and operational information for decision making. The BCV will be tailored to satisfy commanders needs. Each BCV has four internal workstations and is staffed with a commander, an operations officer, an intelligence officer, and an FSO. Each workstation has software that is commensurate with workstation functions and desired redundancy.

## **Army Airborne Command and Control System (A2C2S)**

The A2C2S provides the corps commander down through the battalion commander a highly mobile command and control system. The current configuration is mounted in the rear of a UH-60 Blackhawk helicopter. This system is a fully integrated digital platform that combines intelligence information from both national (including JSTARS) and battlefield assets along with long distance digital communications radios to provide the commander a better chance to make combat effective decisions. This system is capable of carrying a staff of five. Normal configuration includes a commander, an intelligence officer, an FSO, an operations officer, and an LO.

## **Unmanned Aerial Vehicle**

This system provides R&S and target acquisition capabilities to the digitized brigade in excess of 150 kilometers beyond the FLOT, day or night, and in limited visibility and adverse weather conditions. This UAV is intended for employment in environments where real-time information feedback is needed, manned aircraft is unavailable, or excessive risk or other conditions make it less prudent to use manned aircraft.

## **Target Surveillance and Attack Radar System**

This system provides TACAIR and ground commanders with near real-time wide area surveillance and deep targeting data on both moving and fixed targets during daylight and at night and in all weather conditions. It can detect, locate, track, classify, and assist in attacking targets beyond the FLOT. Operators aboard the aircraft downlink data in near real-time to multiple ground station modules and transfer the data to ground commanders.

## **Remote Sensor System**

This remote sentry system provides low-cost lightweight, autonomous, remote, wide area, ground-based surveillance and target acquisition during daylight and in limited visibility conditions. This is accomplished through both imaging sensors (forward looking infrared) and nonimaging sensors (acoustics, magnetic, and seismic). These sensors provide compressed target image hand-off to reconnaissance elements.

## **SUPPORT SYSTEMS**

### **Obstacle Breaching System (Grizzly)**

This system is equipped with a full-width mine-clearing blade and a power-driven excavating arm. While buttoned-up, the two-man crew can operate the blade and the arm and drive the vehicle from either crew station. The mission of the Grizzly is to provide an in-stride breaching capability to overcome simple and complex obstacles. The system will breach a full-width lane and clear lanes to allow a maneuver force mobility through minefields, rubble, tank ditches, wire, and other obstacles.

### **Heavy Assault Bridge System (Wolverine)**

The heavy assault bridge system is operated by a two-man crew. It will support a military load crossing 70 at 16 kilometers per hour and will support the mounted maneuver platforms. The bridge is launched from under armor in 5 minutes and retrieved in 10 minutes. The mission of the heavy assault bridge is to support crossing gaps. The heavy assault bridge increases force mobility by allowing units to transit gaps such as tank ditches, road craters and partially damaged bridge sections.

### **Wide Area Munitions (Hornet)**

The Hornet has a stand-off detection and engagement capability. It attacks from the side or top

at ranges up to 100 meters and provides a mobility kill to a designated target array. The Hornet can be used as a stand-alone tactical minefield or to reinforce a conventional obstacle. The Hornet can be rapidly employed along exposed flanks during movement as a situational obstacle to disrupt enemy counterattacks.

## **SERVICE SUPPORT SYSTEMS**

### **Tactical Vehicles**

The family of medium tactical vehicles consists of a common truck chassis. This tactical vehicle system will perform line haul, local haul, unit mobility, unit resupply and other missions in combat, CS, and CSS units. It is equipped with digital communications systems that enhance situational awareness and increase the capability to throughput supplies and equipment directly to the user.

### **Force Provider System**

The force provider system provides the forward soldier a brief respite from the rigors of combat. Its primary function is to improve the quality of life for combat soldiers on extended operations in remote areas.

### **Palletized Load System**

The palletized load system is a tactical vehicle consisting of a prime mover with an integral self-load/unload capability. It performs line and local haul, unit resupply, and other missions in support of modernized, highly mobile organizations. The palletized load system also greatly improves ammunition transport efficiency and productivity in the supply distribution role. It reduces dedicated personnel, materiel-handling equipment, line haul, and heavy cargo transport vehicle requirements in the current ammunition distribution system.

### **Nuclear, Biological, and Chemical Reconnaissance System (Fox)**

NBC reconnaissance systems are armored vehicles equipped with a fully integrated NBC detection, warning, and communication capability. They detect, identify, and mark areas of NBC contamination. They also collect soil, water, and vegetation samples for later analysis. Hazards to the crew are minimized through the inclusion of vehicle NBC collective protection that provides overpressure with heating and cooling for crewmen.

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## **SECTION IV. DIGITIZED TACTICAL OPERATIONS**

### **MISSIONS**

The nature of digital operations is the continuous transition between offensive and defensive activities aimed to overwhelm the enemy. The digitized brigade can employ both defensive and offensive characteristics associated with them. Leaders of the digitized brigade must fully understand doctrinal offensive and defensive fundamentals and recognize that in execution of

tactical engagements they must be applied simultaneously. The digitized brigade performs the missions outlined in Table E-1 in support of information, decisive, and security operations.

**Table E-1.** Digitized brigade missions.

<b>INFORMATION OPERATIONS</b>	<b>DECISIVE OPERATIONS</b>	<b>SECURITY OPERATIONS</b>
Screen	Attack	Cover
Movement and contact	Defend	Delay
Demonstration		Relief
Feint		OOTW activities
Raid		Post conflict operations

## **OPERATIONS**

### **Information Operations**

The digitized brigade conducts specific missions to gain or destroy enemy information capabilities. These missions are conducted as part of larger operations to set conditions for decisive operations. The conceptualization, planning, and execution techniques are similar. Information missions are complicated, lethal, and difficult to control. These operations are conducted to obtain information and to test enemy dispositions, strengths, and reactions. Units conducting information operations must rapidly transition to decisive operations to exploit unexpected opportunities. The digitized brigade conducts movement and contact, screening force, feint, demonstration, and raid missions in support of information operations.

### **Decisive Operations**

The digitized brigade conducts rapid, decisive operations to defeat the enemy with minimal casualties. The brigade attacks and defends to achieve this end. The real distinctions between attack and defense for the digitized force is the intent of the commander and the requirement to deny terrain to the enemy. The principle of simultaneity is paramount to the success of decisive operations. The brigade conceptualizes, plans, and executes decisive operations to attack the enemy at multiple critical points with the attacks occurring almost simultaneously. It conducts information activities to identify the critical points of the engagement, including a decisive point, and assigns specific tasks and purposes that its subordinate elements must achieve. The brigade commander and staff orchestrate and control the near-simultaneous actions of the subordinate elements, and they also employ assets of which they retain control to create the conditions and synergy required to bring the enemy to a rapid defeat.

The digitized brigade assigns the critical points of the engagement as missions to the subordinate elements. These missions have specific tasks and purposes and are linked together by a unified concept of the operations and commanders intent. The brigade commander may retain control of selected assets for employment against specific critical points when he determines that he and his staff will be better suited than the subordinate staffs to control tempo, achieve synchronization, or use these assets unique capabilities. An example of assets retained for brigade control are attack aviation, BAI, MLRS/Army tactical missile system



(ATACMS), SOF direct action teams, PSYOP teams, and EW assets.

In addition to identifying and assigning critical points, the brigade commander determines what action will destroy the enemy. This action is identified as the decisive point. The brigade aggressively seeks to maintain the initiative, control time, and deny the enemy the ability to employ any options. By clearly identifying the decisive point, the commander has specified an end state which, in the absence of orders, allows any unit on the battlefield to achieve.

## **Security Operations**

Security missions are conducted to enhance freedom of action by reducing vulnerability to hostile acts, influence, or surprise. The digitized brigade performs security missions as part of a larger force. A security mission may be assigned to the brigade from division to economize combat power by assigning smaller forces to provide security so larger forces can be freed for commitment to the main effort. The digitized brigade will be expected to employ its enhanced information and intelligence capabilities to secure a larger volume of physical space than its conventional predecessor. The brigade may conduct covering force, delay, and relief missions and OOTW activities to provide security during combat operations.

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# FM 71-3

## The Armored and Mechanized Infantry Brigade

### APPENDIX F FRATRICIDE PREVENTION

Fratricide is as old as warfare itself, a complex problem that defies simple solutions. Fratricide can be broadly defined as the employment of friendly weapons and munitions, with the intent to kill the enemy or destroy his equipment or facilities, that results in unforeseen and unintentional death or injury to friendly personnel. This appendix focuses on actions leaders can take with current resources to reduce the risk of fratricide.

#### CONTENTS

Section I.	<a href="#">Magnitude of the Problem</a>
Section II.	<a href="#">Risk Identification and Preventive Measures</a>
Section III.	<a href="#">Risk Assessment</a>
Section IV.	<a href="#">Fratricide Reduction Measures</a>
Section V.	<a href="#">Fratricide Risk Considerations (OPORD Format)</a>

### SECTION I. MAGNITUDE OF THE PROBLEM

The modern battlefield is more lethal than any in history. The tempo of operations is rapid, and the nonlinear nature of the battlefield creates command and control challenges for all unit leaders.

The accuracy and lethality of modern weapons make it possible to engage and destroy targets at these extended acquisition ranges. At the same time, however, the ability of US forces to acquire targets using thermal imagery and other sophisticated sighting systems exceeds our ability to accurately identify these targets as friend or foe. As a result, friendly elements can be engaged unintentionally and destroyed in a matter of seconds.

Added to this is the problem of battlefield obscuration, which becomes a critical consideration whenever thermal sights are the primary source of target identification. Rain, dust, fog, smoke, and snow degrade identification capability by reducing the intensity and clarity of thermal images.

On the battlefield, positive visual identification cannot be the sole engagement criteria at ranges beyond 1,000 meters. Situational awareness is the key; it must be maintained throughout an

operation.

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## SECTION II. RISK IDENTIFICATION AND PREVENTIVE MEASURES

Reduction of fratricide risk begins during the planning phase of an operation and continues throughout preparation and execution. Risk identification must be conducted at all levels during each phase; the results then should be clearly communicated up and down the chain of command so that risk assessment can begin. This section covers considerations that influence risk identification; it also focuses on measures the platoon leader can implement to make the identification process more effective and to help prevent friendly fire incidents from occurring. Section III covers the risk assessment process. [Section IV](#) lists additional fratricide reduction measures and guidelines.

### PLANNING PHASE

A plan that is thoroughly developed and understood helps to minimize fratricide risk. The following considerations help indicate the potential for fratricide in a given operation:

- Clarity of the enemy situation.
- Clarity of the friendly situation.
- Clarity of the commander's intent.
- Complexity of the operation.
- Planning time available at each level.

Graphics are a basic tool that commanders at all levels use to clarify their intent, add precision to their concept, and communicate their plan to subordinates. As such, graphics can be a very useful tool in reducing the risk of fratricide. Commanders at all levels must understand the definitions and purpose of operational graphics and the techniques of their employment. See FM 101-5-1 for the definitions of each type of graphic control measure.

### PREPARATION PHASE

The following factors may cause fratricide risks to become evident during rehearsals:

- Number and type of rehearsals.
- Training and proficiency levels of units and individuals.
- The habitual relationships between units conducting the operation.
- The physical readiness (endurance) of the troops conducting the operation.

Confirmation briefs and rehearsals are primary tools in identifying and reducing fratricide risk during the preparation phase. The following are some considerations for their use:

- Use confirmation briefs or rehearsals to ensure subordinates know where fratricide risks exist and what to do to reduce or eliminate the risk.
- Backbriefs ensure subordinates understand the commander's intent. They often highlight areas of confusion, complexity, or planning errors.

- The type of rehearsal conducted determines what types of risks are identified.
- Rehearsals should extend to all levels of command and involve all key players.

## EXECUTION PHASE

During execution, in-stride risk assessment and reaction are necessary to overcome unforeseen fratricide risk situations. The following are factors to consider when assessing fratricide risks:

- Intervisibility between adjacent units.
- Amount of battlefield obscuration.
- Ability or inability to positively identify targets.
- Similarities and differences in equipment, vehicles, and uniforms among friendly and enemy forces.
- Vehicle density on the battlefield.
- The tempo of the battle.

Maintaining situational awareness at all levels and at all times is another key to fratricide reduction as an operation progresses. Units must develop and employ effective techniques and SOPs to aid leaders and crewmen in this process. These techniques include:

- Monitoring on the next higher net.
- Radio cross-talk between units.
- Accurate position reporting and navigation.
- Training and use/exchange of LOs.

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## SECTION III. RISK ASSESSMENT

Risk assessment must be conducted whenever fratricide risks factors are identified. It must take place at all levels during each phase of operations. As with risk identification, the results of the assessment must be passed on to all levels of the chain of command so that fratricide reduction measures can be developed and implemented. Refer to [Section IV](#) for specific reduction measures.

Figure F-1 is a worksheet for evaluating fratricide risk in the context of mission requirements. The worksheet lists six mission-accomplishment factors that affect the risk of fratricide, along with related considerations for each factor. Assess the potential risk in each area as low, medium, or high, and assign a point value to each (one point for low risk, two for medium risk, three for high risk). Add the point values for the overall fratricide assessment score. Use the resulting score only as a guide, however. Your final assessment must be based both on observable risk factors like those on the worksheet and on your "feel" for the intangible factors affecting the operation. Note that descriptive terms are listed only in the low and high-risk columns of the worksheet. Your assessment of each factor will determine whether the risk matches one of these extremes or lies somewhere between them as a medium risk.



FACTORS		LOW (1)	MEDIUM (2)	HIGH (3)
1.	UNDERSTAND PLAN			
	- CDR'S INTENT	CLEAR	<---->	FOGGY
	- COMPLEXITY	SIMPLE	<---->	COMPLEX
	- ENEMY SITUATION	KNOWN	<---->	UNKNOWN
	- FRIENDLY SITUATION	CLEAR	<---->	UNCLEAR
	- ROE	CLEAR	<---->	UNCLEAR
2.	ENVIRONMENT			
	- INTERVISIBILITY	FAVORABLE	<---->	UNFAVORABLE
	- OBSCURATION	CLEAR	<---->	OBSCURED
	- BATTLE TEMPO	SNOW	<---->	FAST
	- POSITIVE TARGET ID	100%	<---->	0%
3.	CONTROL MEASURES			
	- CMD RELATIONSHIPS	ORGANIC	<---->	JOINT/ COMBINED
	- AUDIO	LOUD/CLEAR	<---->	JAMMED
	- VISUAL	WELL SEEN	<---->	OBSCURED
	- GRAPHIC	STANDARD	<---->	NOT UNDERSTOOD
	- SOPs	STANDARD	<---->	NOT USED
	- LOs	PROFICIENT	<---->	UNTRAINED
	- LOCATION/NAVIGATION	SURE	<---->	UNSURE
4.	EQUIPMENT (COMPARED TO US)			
	- FRIENDLY	SIMILAR	<---->	DIFFERENT
	- ENEMY	DIFFERENT	<---->	SIMILAR
5.	TRAINING			
	- INDIVIDUAL PROFICIENCY	MOS QUAL	<---->	UNTRAINED
	- UNIT PROFICIENCY	TRAINED	<---->	UNTRAINED
	- REHEARSAL	MULTIPLE	<---->	NONE
	- HABITUAL RELATIONSHIP	YES	<---->	NO
	- ENDURANCE	ALERT	<---->	FATIGUED
6.	PLANNING TIME (1/3 - 2/3 RULE)			
	- HIGHER HQ	ADEQUATE	<---->	INADEQUATE
	- OWN HQ	ADEQUATE	<---->	INADEQUATE
	- LOWER HQ	ADEQUATE	<---->	INADEQUATE
7.	OVERALL FRATRICIDE ASSESSMENT	LOW 26 - 46*	MED 42 - 62*	HIGH 58 - 78*
* COMMANDER MAY USE NUMBERS AS THE SITUATION DICTATES. NUMBERS ALONE MAY NOT GIVE ACCURATE FRATRICIDE RISK.				

Figure F-1. Fratricide risk assessment worksheet.

## SECTION IV. FRATRICIDE REDUCTION MEASURES

The following measures are provided as a guide to actions that can reduce fratricide risk. They are not directive in nature, nor are they intended to restrict initiative. Apply them as appropriate based on the specific situation and METT-T factors.

- Identify and assess potential fratricide risks in the estimate of the situation. Express these risks in the OPORD or FRAGO.
- Maintain situational awareness, focusing on such areas as current intelligence; unit locations and dispositions; denial areas (minefields and FASCAM); contaminated areas,

such as improved conventional munition (ICM) and NBC; situation reports (SITREP); and METT-T factors.

- Ensure positive target identification. Review vehicle and weapons ID cards. Know at what ranges and under what conditions positive identification of friendly vehicles and weapons is possible.
- Establish a command climate that stresses fratricide prevention. Enforce fratricide prevention measures, emphasize the use of doctrinally sound TTPs. Ensure constant supervision when executing orders and performing all tasks and missions to standard.
- Recognize the signs of battlefield stress. Maintain unit cohesion by taking quick, effective action to alleviate it.
- Conduct individual, leader, and collective (unit) training covering fratricide awareness, target identification and recognition, and fire discipline.
- Develop a simple, decisive plan.
- Give complete and concise mission orders.
- Use SOPs that are consistent with doctrine to simplify mission orders. Periodically review and change SOPs as needed.
- Strive for maximum planning time for you and your subordinates.
- Use common language/vocabulary and doctrinally correct standard terminology and control measures, such as FSCLs, zone of engagement, and RFLs.
- Ensure thorough coordination is conducted.
- Plan for and establish effective communications.
- Plan for collocation of CPs whenever it is appropriate to the mission, such as during a passage of lines.
- Designate and employ LOs as appropriate.
- Ensure ROE are clear.
- Include fratricide risk as a key factor in terrain analysis (observation and fields of fire, cover, concealment, obstacles, key terrain, avenues of approach [OCOKA]).
- Conduct rehearsals whenever the situation allows time to do so.
- Be in the right place at the right time. Use position location and navigation devices (GPS and POSNAV); know your location and the locations of adjacent units (left, right, leading, and follow-on); and synchronize tactical movement.
- Include discussion of fratricide incidents in after-action reviews (AAR).

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## **SECTION V. FRATRICIDE RISK CONSIDERATIONS (OPORD FORMAT)**

This section, which parallels the five-paragraph OPORD, contains key factors and considerations in fratricide reduction. This is not a change to the OPORD format; rather, it should be used during OPORD development to ensure fratricide reduction measures are included in the order. It is not a strict guide. The factors and considerations are listed where



they would likely appear in the OPOD, but they may warrant evaluation during preparation of other paragraphs.

a. Situation.

a. Enemy forces.

1. Are there similarities among enemy and friendly equipment and uniforms that could lead to fratricide?
2. What languages do enemy forces speak? Could these contribute to fratricide risk?
3. What are the enemy's deception capabilities and his past record of deception activities?
4. Do you know the locations of enemy forces?

b. Friendly forces.

1. Among the allied forces, are there differences (or similarities with enemy forces) in language, uniform, and equipment that could increase fratricide risk during combined operations?
2. Could differences in equipment and uniforms among US armed forces increase fratricide risk during joint operations?
3. What differences in equipment and uniforms can be stressed to help prevent fratricide?
4. What is the friendly deception plan?
5. What are the locations of your unit and adjacent units (left, right, leading, follow-on)?
6. What are the locations of neutrals and noncombatants?

c. Own forces.

1. What is the status of training activities? What are the levels of individual, crew, and unit proficiency?
2. Will fatigue be a factor for friendly forces during the operation? Has an effective sleep plan been developed?
3. Are friendly forces acclimatized to the AO?
4. What is the age (new, old, or mix) and condition of equipment in friendly units? What is the status of new equipment training?
5. What are the expected MOPP requirements for the operation?

d. Attachments and detachments.

1. Do attached elements understand pertinent information regarding enemy and friendly forces?
2. Are detached elements supplied this pertinent information by their gaining units?

e. Weather

1. What are the expected visibility conditions (light data and precipitation) for the operation?

2. What effect will heat and cold have on soldiers, weapons, and equipment?

f. Terrain.

1. Do you know the topography and vegetation (such as urban, mountainous, hilly, rolling, flat, desert, swamp/marsh, prairie/steppe, jungle, dense forest, open woods) of the expected AO?
2. Have you evaluated the terrain using the factors of OCOKA?

b. Mission. Is the mission, as well as all associated tasks and purposes, clearly understood?

c. Execution.

a. Task organization.

1. Has the unit worked under this task organization before?
2. Are SOPs compatible with the task organization (especially with attached units)?
3. Are special markings or signals (for example, cats' eyes, chemlites, or panels) needed for positive identification of uniforms and equipment?
4. What special weapons and/or equipment are to be used? Do they look or sound like enemy weapons and/or equipment?

b. Concept of the operation.

1. Maneuver. Are main and supporting efforts identified to ensure awareness of fratricide risks and prevention measures?
2. Fires (direct and indirect).
  - a. Are priorities of fires identified?
  - b. Have target lists been developed?
  - c. Has the fire execution matrix/overlay been developed?
  - d. Have locations of denial areas (minefields, FASCAM) and contaminated areas (ICM, NBC) been identified?
  - e. Are the locations of all supporting fire targets identified in the OPOD/OPLAN overlays?
  - f. Are aviation and CAS targets clearly identified? Have signals been established to positively identify these targets for the aircraft? Have ACAs and SEAD plans been developed?
  - g. Has the direct-fire plan been developed and synchronized with the FS plan?
  - h. Have FPFs been designated?
    - i. Have you identified and verified sector limits?
    - j. Have executors for each target been assigned and do they understand when and where to shoot? Can they observe the target?
    - k. Are the observers surveyed in or are they using a map spot? Target location errors can cause big problems.
    - l. Do all leaders and executors understand where the FSCMs are and

when they go into effect? Rehearsal is the key.

- m. Can the FSO hear what targets are being called on the maneuver nets?
- n. Have all targets been rehearsed with the executors and the FA battalion?
- o. Does the reinforcing or GS reinforcing FA have all the proper graphics and understand where they fit in? Did they attend the rehearsal?
- p. Have restrictions on specific munitions been established and does everyone know where they are planned and emplaced?
- q. What is the minimum safe distance for the shell/fuze/delivery system? Are the fine requirements for accurate predicted fire met or do we have to adjust fire?

### 3. Engineer tasks.

- a. Are friendly minefields, including FASCAM and ICM dud-contaminated areas, known?
- b. Are obstacles identified, along with the approximate time needed for reduction/breaching of each?

### 4. Tasks to each subordinate unit. Are friendly forces identified, as appropriate, for each subordinate maneuver element?

### 5. Tasks to CS/CSS units. Have locations of friendly forces been reported to CS/CSS units?

### 6. Coordinating instructions.

- a. Will rehearsals be conducted? Are they necessary? Are direct and indirect fires included?
- b. Is a confirmation brief necessary?
- c. Are appropriate control measures clearly explained and illustrated in the OPOD and overlays? Have they been disseminated to everyone who has a need to know? What is the plan for using these control measures to synchronize the battle and prevent fratricide?
- d. Are the locations for division and corps slice elements within the brigade battle space posted and disseminated?
- e. Have target/vehicle identification drills been practiced?
- f. Do subordinate units know the immediate action, drill, or signal for "CEASE FIRE" or "I AM FRIENDLY" if they come under unknown or friendly fire? Is there a backup action?
- g. Is guidance in handling dud munitions, such as ICM and cluster bomb units (CBU), included?

### d. Service Support.

- a. Are train locations and identification markings known by everyone?
- b. Do medical and maintenance personnel know the routes between train units?

### e. Command and Signal.

a. Command.

1. What are the locations of the commander and key staff members?
2. What is the chain of command and the succession of command?

b. Signal.

1. Do instructions include backup code words and visual signals for all special and emergency events?
  2. Do instructions cover how to identify friendly forces to aircraft?
  3. Are SOI distributed to all units with a need to know, such as higher, lower, adjacent, leading, and follow-on elements?
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## The Armored and Mechanized Infantry Brigade

### APPENDIX G BRIGADE PREPO AFLOAT OPERATIONS

#### CONTENTS

Section I.	<a href="#">Fundamentals</a>
Section II.	<a href="#">Deployment</a>
Section III.	<a href="#">Theater Reception and Onward Movement</a>
Section IV.	<a href="#">Redeployment</a>
Section V.	<a href="#">Commander's Guide to Deployment Operations</a>

### SECTION I. FUNDAMENTALS

#### GENERAL

The PREPO AFLOAT armored brigade is organized to fight successful engagements on any battlefield. It combines the efforts of subordinate battalions to perform tactical tasks as part of a joint task force or combined force. The key to successful operations is the brigades ability to synchronize maneuver battalions and integrate CS and CSS combat multipliers in support of the overall brigade effort.

The primary mission of the armored brigade is to close with and destroy forces using its mobility, firepower, and shock effect. It defeats enemy assaults by defensive fires, obstacles, mines, and counterattacks. The armored brigade is also capable of conducting operations across the range of military operations (peacetime, conflict, and war).

#### CAPABILITIES

Capabilities of the PREPO AFLOAT armored brigade are:

- Conduct sustained operations in all environments.
- Accomplish rapid movement.
- Exploit success and pursue a defeated enemy as part of a larger formation.
- Conduct limited security operations (screens and guards).
- Conduct defensive operations or delays in sector over large areas.
- Conduct offensive operations.



## LIMITATIONS

Due to the density of organic tracked vehicles, the armored brigade has the following limitations:

- Dense jungle and forests, steep and rugged terrain, and significant water obstacles restrict mobility.
- Urbanized terrain impedes maneuver.
- Substantial numbers of heavy equipment limit strategic mobility.
- Consumes significant amounts of supplies, especially Classes III, V, and IX.

The PREPO AFLOAT armored brigade may be deployed independently; however, it is normally deployed incrementally as part of a larger force. The brigade is assisted by the installation, its higher headquarters, other armed services, the host nation, and units already in the AO. The PREPO AFLOAT brigade must

- Reassemble rapidly into a division-size force.
- Establish the basic battle command and liaison functions with the responsible headquarters established in theater.

## ROLE

The PREPO AFLOAT armored brigade uses its unique capabilities to conduct combat operations across the range of military operations. It is required to operate in a wide range of political, military, and geographical environments. Some examples of this wide range of environments armored forces have historically operated in include:

- A jungle environment during the Vietnam War.
- The South Pacific in support of amphibious operations during World War II.
- An urban environment during World War II, Panama in 1989-90, and Somalia in 1993.
- The desert during World War II and the Gulf War.

Tactical missions of the armored brigade involved in a PREPO AFLOAT operation, both in war and OOTW, include the following:

- Engage and destroy enemy forces using mobility, firepower, and shock effect in coordination with other arms.
- Conduct offensive and defensive missions.
- Provide security, reconnaissance, and antiarmor firepower to a light infantry, airmobile, airborne division, or the USMC, during a CONOP.
- Expand and sustain a lodgment for follow-on forces in coordination with other arms and services.
- Reinforce a lodgment established by the Army early entry forces or by USMC amphibious assault units.
- Augment an amphibious deployment or operation.
- Provide an armored force capability to a Marine Expeditionary Force during a CONOP.

- Establish a sizable combat force to enable closure of additional forces and support a higher commanders operation or campaign plan.
  - Reinforce an ally with a credible force prior to hostilities, and sustain relations with allies and coalition partners through routine exercises and operations.
  - Conduct a show of force.
- 

## **SECTION II. DEPLOYMENT**

### **GENERAL**

During the predeployment (alert) planning phase, unit commanders ensure unit personnel, supplies, and selected equipment are prepared for deployment. They update their automated unit equipment list to reflect actual personnel and equipment deployment posture. They coordinate the disposition of their units remain-behind equipment, and coordinate with the installation commander for support required for deployment that is not within the units organic capability.

During movement to the point of embarkation (POE) phase, units move to the POE IAW port call messages. During the strategic lift phase, units move to the theater of operations in a flow sequenced to facilitate and support the efficient offload of the PREPO AFLOAT ships.

### **ORGANIZATION FOR CONTROL OF DEPLOYMENT**

US Transportation Command (USTRANSCOM), as the strategic deployment manager, is responsible to coordinate the air and sea deployment. Army forces coordinate with the unified command and US Commander-in-Chief Transportation Command (USCINC-TRANS) and other supporting agencies. The Air Mobility Command pre-positions an air terminal movement control team at the aerial port of debarkation (APOD) with the port support activity. This provides unity of effort and accomplishes the required interface with the port operator to clear Army personnel and cargo from the port. The Military Sealift Command (MSC) plans and executes sea deployments. Reports of the movement are made through normal chains of command in accordance with joint operation planning and execution system procedures.

### **Conduct of Air Deployment**

Air deployment is used to transport personnel and selected supplies and equipment from an aerial port of embarkation (APOE) to an APOD in the AO. The time required to transport the force depends on the size of the force, aircraft availability, distance, and throughput considerations. The airlift is accomplished by the Air Mobility Command aboard strategic aircraft and civil contract carriers. The Air Mobility Command determines airflow routing and airflow based on the approved time-phased force deployment data.

### **Conduct of Sea Deployment**

PREPO AFLOAT ships move as directed by the MSC. Ship deployment should accommodate

the earliest possible embarkation of the offload preparation party (OPP). The Army service component commander coordinates with USTRANSCOM (MSC) for authorization for OPP to embark PREPO AFLOAT ships. PREPO AFLOAT ships rendezvous with escorts, if assigned, and conduct transit to the marshaling area.

## **DEPLOYMENT SUPPORT ORGANIZATIONS**

Organizations that assist PREPO AFLOAT armored brigade commanders during deployment are discussed in the following paragraphs.

### **Movement Control Center**

The movement control center (MCC) coordinates transportation support to assist the deploying unit in moving to the POE.

### **Installations**

Military installations play a key role in the alert and deployment process. CONUS replacement centers are installations assigned a mobilization mission. The installation commanders at or in the vicinity of POEs provide materiel handling equipment, transportation, security, and other support as requested by the deploying unit. The installation also coordinates updating of the automated unit equipment list.

### **Aerial Port of Embarkation Operations**

The Air Mobility Command exercises overall control of airlift operations at APOEs. The Air Mobility Command tanker airlift control element establishes an airlift operations center at the airfield, with all information related to onload operations coordinated through the airlift operations center.

The departure airfield control group (DACG) is the primary interface with the Air Force at APOEs. A DACG is responsible for coordinating and controlling the outloading of units for deployment or redeployment. A DACG should be pre-positioned as early as possible at the arrival/departure airfield. The DACG is responsible for receiving deploying equipment from the units at the APOE; coordinating with the tanker airlift control element to ensure that cargo and personnel are properly prepared for air shipment; and for delivering cargo to the ready line. Further responsibilities are outlined in FM 55-12.

Coordination between the moving unit, arrival/departure airfield control group (A/DACG), and tanker airlift control element (TALCE) is critical to an orderly deployment of airlift aircraft through the APOE/APOD. The arrival of unit equipment and personnel for onload must be sequenced to avoid bottlenecks at the APOE. Army forces/armored brigade commanders provide an officer at the APOE to coordinate with A/DACG and TALCE the arrival of unit equipment and personnel.

If required, an ammunition accountability element may be deployed to the APOE to provide technical assistance, quality assurance, and safety support during the uploading of ammunition. These elements also serve to provide asset visibility and accountability to the national inventory

control point and the CINC.

## **Seaport of Embarkation Operations**

The Military Traffic Management Command (MTMC) exercises overall responsibility for CONUS and selected outside CONUS (OCONUS) sea ports. MTMC operates the port and supervises the operation of post support activity (PSA) assigned to the various ports.

MTMC provides the following at other than civil ports:

- Deployment control units are non-deployable Forces Command (FORSCOM) or MTMC organizations that assist deploying units with deployment requirements.
- MTMC Tiger Team is designed to temporarily operate a seaport of embarkation (SPOE) until the transportation terminal unit (TTU) is fully operational. When alerted, the Tiger Team immediately deploys to the SPOE to coordinate contracts, set up operations, and begin receiving cargo. The teams composition is determined by MTMC based on mission requirements. On activation, the team is responsible for opening the port and conducting operations to support the deployment of military forces. Command authority remains with the team until the TTU commander arrives and assumes responsibility.
- TTUs are the MTMC's traffic management representative at the seaport with the specific responsibility of monitoring DOD commercial contract cargo movements to include unit equipment, resupply, and retrograde shipments. The TTUs provide MTMC with the capability to expand the number of ports available for sustained seaport operations. The TTU conducts water terminal operations at established commercial ports in which existing equipment and manpower are available to perform actual terminal operations.

## **Port Support Activity**

The port support activity (PSA) is a temporary military augmentation organization comprised of personnel with specific skills that aid the port commander in receiving, processing, and clearing cargo at both the SPOE and the seaport of debarkation (SPOD). Stateside installations are delegated specific ports to which they must provide the PSA and other logistic support for deploying personnel. Installation commanders responsible for deployments should not, where practical, task deploying units to support the PSA organization. The PSA is under OPCON of the port commander.

The PSA ensures that the equipment of deploying units is ready to be loaded onto vessels. PSA functions may include performing maintenance, correcting configured equipment loads, providing security for sensitive cargo, and driving requirements within the marshaling area.

The PSA establishes the necessary communications to ensure the proper flow of cargo and provides daily operational reports of cargo received, maintenance performed, and operational problems to the port commander.

## **FORCE PROJECTION OPERATIONS**

PREPO AFLOAT force projection operations follow a general sequence, although the stages often overlap in space and time. These operations seldom begin with a clear idea of the entire

package or purpose. Often, deployment requirements develop over time and with adjustments. Enemy actions further change the equation. PREPO AFLOAT force projection operations do not end when the brigade arrives in theater. They end when the mission is completed and the last soldier returns to home station.

## **Predeployment Activities**

Predeployment activities include the planning and preparation for an eventual PREPO AFLOAT operation prior to notification, and those actions undertaken upon notification that lead to the actual deployment. Successful PREPO AFLOAT operations rely on trained, equipped, and sustained units and soldiers. The brigade METL should reflect tasks associated with conducting any CONOP. Training should emphasize critical tasks associated with CONOP and PREPO AFLOAT operations. Brigades assigned missions that use PREPO AFLOAT operations should consider the following activities as part of their planning and preparation:

- Establish, develop, train, and refine alert notification procedures.
- Conduct periodic operational readiness inspections.
- Inspect and maintain overseas movement packers per division and Army regulations.
- Maintain and refine packing lists and load plans.
- Prepare hand receipts and turnover of PREPO AFLOAT equipment.
- Maintain effective family support group structures.
- Coordinate required PAO/media interface.
- Establish a rear-detachment structure and identify procedures for rear-detachment operations.

The critical stage of predeployment activities begins when the brigade is alerted for a PREPO AFLOAT CONOP. The objective for the brigade commander and staff is to task organize the brigade and quickly develop and refine operational concepts. The need to plan and prepare for a strategic deployment is a particularly demanding aspect of this stage.

The PREPO AFLOAT CONOP actually begins when the unit is notified to deploy. The division or other higher headquarters of the brigade initiates execution. This execution sequence is called the N-hour sequence and is discussed in Section VI of this appendix.

## **Echelonment of Forces**

Echeloning is organizing the units for movement. Generally, the brigade organizes into the four echelons described below.

### ***Offload Preparation Party***

The offload preparation party (OPP) is a temporary task organization that consists of maintenance, embarkation personnel, and equipment operators from the PREPO AFLOAT armored brigade and support elements. The OPPs task is to prepare the equipment onboard the PREPO AFLOAT ships for debarkation at the SPOD. Once alerted, the OPP deploys to join the PREPO AFLOAT ships prior to their sailing, during transit, or when the ships arrive at the

SPOD. Ideally, the OPP should deploy to join the PREPO AFLOAT ships at least 96 hours (four days) prior to SPOD closure. If this is not feasible, the OPP should be positioned in the marshaling area and aboard the PREPO AFLOAT ships as soon as possible.

On arrival aboard a PREPO AFLOAT ship, the OPP OIC reports to the PREPO AFLOAT ship master to obtain specific directions concerning shipboard activities. The OPP's responsibilities and priorities are established by the supported CINC/Army forces and must be in concert with the requirements established by the ship's master. The relationship between the OPP and the ship's master parallels that of an embarked unit commander and the commanding officer of amphibious ships. The OIC of the OPP conveys the offload priorities, established by the CINC/Army forces commander, to the PREPO AFLOAT ship's master and contracting officer technical representative. These priorities define the objectives for offload preparation by the OPP.

The OPP is responsible for preparing the ship's offload systems, lighting, and embarked supplies and equipment for offload. OPP responsibilities include initial depreservation and preparation of supplies and equipment. The OPP must be thoroughly familiar with the configuration of the ship and the ship's load plans.

The OPP consists of representatives from all units of the deploying force. Personnel within an OPP are organized into teams capable of operating independently aboard each ship. Each team is functionally organized and has a team captain who is responsible for OPP functions aboard that ship.

### ***Advance Party***

An advance party is formed from the brigade, division, and echelon above division support elements. The advance party also includes the US Army Armament, Munitions, and Chemical Command (USAMCCOM) ammunition support team. The ammunition support team provides accountability and visibility of ammunition arriving in theater. The primary tasks of the advance party are to arrange for the reception of the main body and airlifted elements, rendezvous with the PREPO AFLOAT ships to continue depreservation procedures, and assist in port support and discharge operations. The advance party deploys before the main body, and should include (as a minimum) battery teams, fuel handlers, drivers (wheeled and tracked), and property book and supply personnel. Upon arrival, the commander's advance party assumes command of the OPP.

### ***Main Body***

The main body is the balance of forces that remain after the advance party has deployed. The deployment of the main body is sequenced to receive equipment and supplies, move to the tactical assembly area, and prepare for continued operations. The main body's flow must be uninterrupted to permit expeditious closure, reception, and onward movement. The logistical support must be consistent with the size of the force as it builds in theater. Forces should arrive in theater no more than 24 hours prior to arrival of the first PREPO AFLOAT ship.

### ***Rear Echelon Force***



This is the remainder of the brigade that does not deploy. The rear echelon force assists the advance party and main body with their deployment from home station, establishes the rear echelon detachment, and ensures the accountability of nondeploying assets and equipment.

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## **SECTION III. THEATER RECEPTION AND ONWARD MOVEMENT**

### **GENERAL**

Theater reception and onward movement is a crucial phase of a PREPO AFLOAT operation. The Army forces commander is responsible for theater reception and onward movement operations that include

- Preparing the reception and onward movement plan.
- Synchronizing air movement and PREPO AFLOAT ship arrival.
- Establishing operating locations and facilities in the marshaling area.
- Coordinating arrival and discharge of equipment and supplies from the PREPO AFLOAT ships (in port, across a beach, or a combination of both).
- Coordinating arrival and offload of airlifted elements.
- Providing personnel, equipment, and transportation to clear the ports, move forces to final destination, document actions, and provide reports.
- Providing communications and security.
- Providing initial life support.
- Assisting the PREPO AFLOAT armored brigade in preparing for its operational mission.

The marshaling area is an area of sufficient size and facilities (airfields, ports, beaches, staging and assembly areas) to perform the complex tasks of arrival, offload, equipment and personnel linkup and staging, supply distribution, assembly, and preparation of forces for employment.

### **LOGISTICS SUPPORT ELEMENT**

The US Army Materiel Command (USAMC) provides the logistics support elements (LSE) to deploy to the marshaling area. Early LSE deployment is necessary to provide maintenance technical assistance, equipment accountability and transfer, as well as other logistics support as needed. The LSE provides a current tactical standard Army management information system (STAMIS) baseline and a printed hand receipt by unique unit identification code. The LSE is normally task organized after issuance of the WO and deployment of the concept for deployment. LSE (minus) should be programmed early within the time-phased force deployment data and will accompany and receive initial life support from the Army Transportation Composite Group. The PREPO AFLOAT contingency force provides an LO to the LSE. As the theater matures, the LSE must continue to receive life support from the theater base.

The United States Army Medical Materiel Agency (USAMMA) is provided an LSE for coordination and control of Class VIII supplies. The USAMMA LSE depends on Army forces for

life support until the deployment of the Theater Medical Materiel Management Center and/or a medical logistics battalion. Upon completion of the mission, the USAMMA LSE receives assignment instructions from USAMMA with the senior medical command and control organization in the theater.

## **COMMENCEMENT AND DISESTABLISHMENT**

The theater reception and onward movement phase begins on arrival of the first PREPO AFLOAT ship or the first aircraft of the main body at the designated APOD/SPOD. This phase ends when:

- Adequate equipment and supplies are offloaded and issued to awaiting units.
- Command and control communications are established.
- Units have moved to the tactical assembly area.
- The Army forces commander reports that all essential elements of the armored brigade have attained combat readiness.

Simultaneous or subsequent tactical operations by the brigade and movements to those operations are not considered part of the PREPO AFLOAT operation.

## **OFFLOAD PREPARATION PARTY TRANSITION FROM DISCHARGE MISSION**

The OPP remains with the ship until discharge operations are complete. During offloading, team members remain aboard to form the nucleus of the debarkation team, augmented as required by contingency force personnel who arrive in the airlifted element. After the ship is offloaded, OPP personnel return to their parent unit.

## **PREPO AFLOAT ACCOUNTABILITY PROCEDURES**

Each national inventory control point and the service item control center at the Army Petroleum Center accounts for and manages PREPO AFLOAT stocks. The standard depot system and the tactical STAMIS maintain the custodial records of cargo aboard each of the PREPO AFLOAT ships.

To facilitate rapid temporary transfer less Class V during deployment (such as within 48 hours), tactical STAMIS will be on board each ship. When a ship arrives at a port, stocks are discharged in quantities as determined by the theater commander. Temporary accountability of these stocks transfers from USAMC and USAMMA to the deploying unit.

During the redeployment phase, prior to returning to home station, equipment and supplies on the tactical STAMIS hardware are turned in to a designated site within the theater of operations. Detailed hand-off and accountability procedures are developed to ensure the most effective and efficient property transfer occurs to support the warfighter at deployment and the reconstitution of PREPO AFLOAT capability at redeployment.

## **TRANSPORTATION OPERATIONS**

During PREPO AFLOAT operations, the Army Transportation Composite Group is responsible

for planning and executing transportation operations in the marshaling area. This includes operation of the APOD/SPOD and all onward movements of personnel, supplies, and equipment from the APOD and SPOD. Army terminal operations at the SPOD include loading, unloading, and handling in-transit supplies, equipment, and personnel between any of the various modes of transportation. Terminals are established for cargo being transferred at beginning, destination, and in-transit points.

## **Movement Control**

A movement control element deploys with the Army Transportation Composite Group to coordinate the onward movement of supplies, personnel, and equipment.

## **Aerial Ports of Debarkation**

Once the aircraft are offloaded, personnel and cargo come under Army forces control for reception and onward movement. The transportation composite group and movement control element coordinate this phase.

The APOD is located within the marshaling area and, ideally, in proximity to the SPOD. APOD operations must meet requirements of the TALCE and the arrival airfield control group (AACG). Designation of offload ramps and holding areas is accomplished jointly by the TALCE and AACG. Holding areas are established sufficiently clear of the offload ramps to avoid congestion and to facilitate loading passengers and equipment from the arriving units. Facilities are also established for AACG and TALCE (command and control, communications, and life support).

## **Other Air Operations**

Air cargo transfer operations within the theater also take place at other Air Force and Army air terminals. The Army forces may be responsible for loading and unloading Air Force and Army aircraft at forward or small austere landing fields that are not a regularly scheduled stop for theater airlift. An Army cargo transfer company or AACG can provide this capability.

## **Arrival Airfield Control Group**

The AACG is responsible for the reception and, in conjunction with the movement control team, for the coordination of onward movement. The AACG provides an interim capability until the arrival of the air traffic movement control team.

## **Sea Ports of Debarkation**

PREPO AFLOAT deployment to a port with sufficient pier space and staging areas to accommodate the simultaneous pierside offload of two or more PREPO AFLOAT ships is the preferred method of discharge. Where possible, the best unconstrained port in the AO should be selected. Unconstrained ports have multiple deep draft shipping pier space, clear shipping channels, land-based cranes, and sufficient staging area. If sufficient unconstrained ports are not available, then conduct discharge operations using a combination of unimproved ports (logistics-over-the-shore [LOTS] and/or over a bare beach).

## **Port Operations**

Ocean water terminals are classified as fixed-port facilities, unimproved port facilities, or bare-beach facilities. Offloading PREPO AFLOAT ships pierside in port accelerates throughput, requires less personnel than a beach operation, and reduces the potential for damage or loss to supplies and equipment. Ports are far less susceptible to the effects of sea and weather conditions. On the other hand, port operations require more interface with the host nation and increase the likelihood of encountering restrictions on handling and transporting ammunition, POL, and hazardous cargo. Civilian ship traffic, labor unions, and general port congestion must also be considered.

### ***Fixed-Port Facilities***

Fixed-port terminals are an improved network of cargo-handling facilities specifically designed for transfer of ocean going freight, vessel discharge operations, and port clearance. Deep-draft ocean-going vessels come alongside a pier, ship, or quay and discharge cargo directly onto the apron. Most cargo is moved into open or covered in-transit storage to await terminal clearance. Selected cargo may be discharged directly to land transport. Fixed-port facilities may also have state-of-the-art facilities and equipment to support cargo discharge and port clearance operations.

### ***Unimproved Port Facilities***

Unimproved port facilities are those that are less productive than a fixed-port facility. Any one or a combination of the following conditions qualifies a port as an unimproved port facility and may require augmentation from a terminal service company and shallow-draft lighting to discharge vessels. The conditions include:

- Port not designed for the type cargo carried (such as containers).
- Lack of permanent fixed equipment or the wrong type of equipment in working areas.
- Berth length and/or water depth alongside the berth if insufficient for the type vessel used.
- Exposure to the elements and passing traffic that hinders vessel operations.
- Damaged fixed port.

### ***Bare-Beach Operations***

In bare-beach operations, Army lighting is used to transport equipment and cargo from ship to shore for discharge across the beach. No facilities, equipment, or infrastructure may exist at the site to discharge cargo or conduct port clearance operations. Beach terminals require specifically selected sites where cargo is delivered by lighting to or across the beach and into marshaling yards or onto waiting clearance transportation.

## **Logistics-Over-the-Shore**

LOTS loading and unloading operations are conducted:

- Over unimproved shorelines; through fixed ports partially destroyed.

- Through shallow-draft ports not accessible to deep-draft shipping.
- Through fixed ports that are inadequate without using LOTS capabilities.

For more information on LOTS, see Joint Pub 4-06.1.

## **Port Support Activity**

The PSA is provided by the PREPO AFLOAT contingency force and is OPCON to the Army Transportation Composite Group. The PSA includes the OPP and additional personnel, such as drivers and mechanics. The PSA assists in the throughput of the PREPO AFLOAT equipment.

## **Inland Terminal Operations**

Inland terminals are established for transshipment of supplies, equipment, and personnel along theater air, inland waterways, rail, and motor transport routes.

The senior movement control element recommends terminals serving rail and inland waterways along existing routes whenever sufficient lift capability cannot be provided by motor and air.

## ***POL and Ammunition***

POL and ammunition should not be held in the port or port overflow areas, but should be transported directly to the storage sites.

## ***Port Authority***

If the host-nation port authority is not functioning, the MTMC or Army Transportation Composite Group assumes this responsibility. The Army forces designate a port LO to provide coordination between the contingency force and the host nation. The port LO advises the port authority regarding cargo characteristics (including hazardous cargo) and offload requirements that may impact on port activities. Additionally, the port LO coordinates with the host-nation support representatives regarding

- Environmental data (tides, winds, obstructions), navigational aids, and harbor information required for safe operations.
- Berths and/or anchorages.
- Tug/pilot services.
- Fire fighting services.
- Pierside services.
- Materiel handling equipment services.

## **Motor Transport**

The Army Transportation Composite Group provides motor transport assets to move unit equipment, supplies, and personnel to the tactical assembly area until the corps support group

(if any) is established.

Motor transport terminals are located at both ends and at intermediate points along line-haul routes serving as the connecting link between local-haul and line-haul service or where terrain necessitates a change in the carrier or mode. Cargo transfer companies and TTPs can also provide limited local-hauling service only in and around motor terminals.

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## **SECTION IV. REDEPLOYMENT**

### **GENERAL**

For PREPO AFLOAT operations, redeployment is the movement of the PREPO AFLOAT forces from a theater of operations to follow-on designated CONUS or OCONUS locations. Prior to redeployment, the PREPO AFLOAT forces turn in all issued PREPO

AFLOAT equipment and supplies to USAMC/USAMMA or designated agencies. They retain to accompany troops (TAT) and not authorized pre-positioning (NAP) equipment and supplies.

This section does not discuss the total process of redeployment. The scope is limited to a discussion of those areas that affect the PREPO AFLOAT force. For additional information on redeployment refer to FM 100-17.

### **REDEPLOYMENT PHASES**

The redeployment process begins after combat operations and reconstitution begins when the force closes upon the redeployment assembly area. During redeployment, contracts for transportation of materiel and maintenance may be used extensively to regenerate the force. The force requests the supporting movement control agency to provide movement authorization to move from the tactical assembly area to the redeployment assembly area. Redeployment for the PREPO AFLOAT forces is conducted in seven phases:

- Reconstitution for strategic movement.
  - Movement to redeployment assembly area.
  - Turn-in of PREPO AFLOAT equipment and supplies to USAMC/USAMMA.
  - Movement to POE.
  - Strategic lift.
  - POD reception.
  - POD onward movement.
- 

## **SECTION V. COMMANDER'S GUIDE TO DEPLOYMENT OPERATIONS**

### **GENERAL**

The OPP is a temporary task organization of support personnel boarded on each ship prior to departure from its home port (siting) location to prepare the afloat equipment and supplies for



off-load at the contingency port. The task organization for the OPP differs for each vessel due to ship characteristics and equipment loads. Normally, the brigade commander provides one officer to serve over all as the OIC of the OPP, and a subordinate OIC for each OPP detachment per ship involved in the operation.

Each roll-on/roll-off ship has its own separate OPP element with approximately 20-25 mechanics, 20-25 equipment operators, 5 biomedical maintenance medical logistic personnel, and 25 representatives from the transportation composite group responsible for the discharge operation. The mechanics and vehicle operators must be qualified to operate the equipment loaded on their assigned ships.

The assigned deploying brigade briefs the OPP OIC and detachment OIC on their responsibilities and priority of tasks prior to departure. Tasks are accomplished in coordination with the ships master.

Necessary tools, parts, and equipment deploy with the OPP to accomplish the required tasks.

## **CONCEPT OF OPERATIONS**

Upon activation, the OIC of the OPP makes arrangements for deployment of the OPP to meet the PREPO AFLOAT ships at their home port or at a point during their transit to the SPOD. Ideally, the OPP should embark on the ship at least 24 hours prior to departure. Coordination must be made for the OPP to be loaded onboard during transit or at a port along the route to the SPOD. If the OPP cannot be onboard during vessel movement, it becomes part of the brigade lead element and embarks as soon as the ships arrive in the SPOD. If the latter occurs, the time required to prepare the ships for off-load may be extended.

Upon arrival at the embarkation point (ship siting location), the OIC of each ship OPP detachment reports to the ships master and coordinates required life support and priority of tasks assigned to the OPP detachment.

The applicable Army service component coordinates through USTRANSCOM with the MSC concerning the deployment of the OPP and required support at embarkation, transit, and arrival at the SPOD. Helicopter support may be needed from the home station embarkation port to fly the OPP element to the ship location if under sail.

Each OPP detachment at the earliest opportunity, under the control of the ships master, should become familiar with the vessels load plan and location of all equipment. The ships master provides guidance as to maintenance limitations due to safety. Unlashing of cargo and equipment during movement is not allowed. If civilian maintenance contractors are on board, the OPP detachment augments the civilian contractor to accomplish their assigned OPP tasks.

OPP tasks include the following:

- Inspect tires (visually) for underinflation; add air if required. Visually inspect tracks for excessive slack. If required, perform adjustments.
- Check for leaks in and around the vehicle/equipment. Check fluid levels in engines, gear boxes, transmission, transfers, and differentials. Add fluids, if required.
- Remove waterproofing and preservation material from exhaust and intake openings.

Remove all packing material that impedes proper equipment/vehicle operation.

- Check the fuel filter; ensure the element is installed and serviceable. Add fuel additive to fuel tanks as required. Check belt tension; adjust if necessary.
- Install or activate batteries. Correct starting procedures must be used to avoid damage to the electrical system. Established safety procedures and precautions must be followed when activating dry batteries. Electrolyte causes serious injury if it comes in contact with the body. Use protective clothing and equipment when handling acid or batteries. Flush overflows or spilled acid from vehicle surfaces. These instructions also apply to batteries supplying power to auxiliary equipment on vehicles. The ship masters approval is required before batteries are installed or activated.
- After the "before operational checks" have been completed, and with the approval of the ships master, start the engine, and after a warm-up period, accelerate gradually to approximately one-half full power (one-half maximum allowable rpm). Observe/listen to the engines response relative to noise and/or vibration. If satisfactory, the vehicle or equipment is ready to operate.
- Perform limited technical inspection of equipment to include medical. Tag any equipment that requires maintenance. Equipment that requires maintenance is identified with a tag attached to the left front and rear of the piece of equipment. The following color code system is used:
  - RED TAG. Needs major repairs.
  - YELLOW TAG. Needs minor repairs or adjustment
  - NO TAG. Generally satisfactory condition.

Secondary loads in trailers or cargo beds are not tagged or inspected due to time constraints.

- Conduct a walk-around inspection (if possible) to ensure all safety requirements have been met prior to placing the item in service.
- Ensure equipment logbooks/ record jackets are present.

The onboard USAMC contractor personnel assists the OPP as set forth in their contract.

In addition to the pre-offload preparation, the OPP is responsible for marking vehicles for distribution to the proper element within the brigade and corps support group (CSG) units per guidance issued by the assigned brigade commander.

The OPP OIC provides a distribution plan and appropriate distribution tags to each ships OPP detachment OIC.

The OPP detachment OIC affixes the distribution tag to the lower right corner of the passenger side front windshield/ corner of the vehicle. The tags are color coded:

- WHITE - Combat brigade (with support base) units.
- GREEN - CSG units.

Based on the color of the distribution tag, separation of the onboard equipment can be made during discharge and movement into the marshaling area. In the marshaling area, further equipment sorting into unit configuration is accomplished.

The priority for equipment preparation is:

- Materiel handling equipment (forklifts, cranes).
- Transportation equipment that supports the throughput of equipment and supplies (line haul tractors/trailers, wreckers, re-fuelers).
- Class VIII (medical).
- Remainder of onboard equipment.

OPP transition at the SPOD:

- The OPP force is incorporated into the advance party upon its arrival at the SPOD. They assist in the discharge of onboard equipment and supplies.
- The port commander has OPCON of the PSA. The PSA includes the OPP and additional personnel, such as drivers and mechanics. It assists in the throughput of PREPO AFLOAT equipment and supplies.

## **ACCOUNTABILITY TRANSFER PROCEDURES**

All PREPO AFLOAT materiel is issued to and managed by the brigade and other support elements as deemed appropriate by the Army forces commander. To facilitate a rapid transition, equipment and supplies are issued to the brigade and other support elements on the tactical STAMIS hardware. The STAMIS hardware is uploaded with the current base line. Equipment and supplies are accounted for and managed during conflict IAW AR 710-2.

### **Class I**

Procedures to be determined by the Defense Logistics Agency, USAMC, and Information Software Systems Development Center at Fort Lee.

### **Class V**

Each ship carrying ammunition will have updated data files in Standard Army Ammunition System (SAAS) format containing all necessary accountability data for those Class V stocks loaded on the ship. Additionally, the ammunition support team that deploys to the theater prior to the arrival of the PREPO AFLOAT or follow-on ammunition ships will have a SAAS computer loaded with the specific Class V data of each ship carrying Class V. Upon arrival, the ship SAAS disk is provided to the ammunition support team to ensure exact data match. The ammunition support team then establishes and reports asset visibility and begins in-theater Class V management from this data base. Ammunition stocks are issued to the brigade, CSG, and managed by the Corps Materiel Management Center (CMMC) IAW Army forces logistics plan. If the CMMC is not established, the ammunition support team provides Class V management for the theater. For Class V assets airlifted into theater, an element of the ammunition support team has a team at the APOD to identify in-coming stocks and report accountability data to the primary ammunition support team element located at the SPOD.

### **Class VII and Other Items Requiring Property Book Accountability**

These stocks are temporarily transferred from USAMC to the deploying unit via the Standard Property Book System-Redesign (SPBS-R). Temporary transfer occurs using STAMIS files in SPBS-R. The deploying unit commander and USAMC representative revise the accountability transfer to reflect the property book items actually issued.

## Class VIII

PREPO AFLOAT ships carry the following types of Class VIII materiel:

- Medical equipment and materiel sets.
- Recommended stockage lists.
- Other individual items of medical equipment.

Each ship loaded with medical materiel will have a data file in the battle book with complete inventory data for the materiel loaded on that ship. The data files will be in a format that is compatible with the Theater Army Medical Management Information System Medical Supply and Medical Assembly modules. The files also provide the gaining unit visibility of component shortages and exclusionary items (items not packed due to special storage requirements) within all medical equipment sets, medical materiel sets, and recommended stockage lists.

The USAMMA LSE deploys to the theater prior to the arrival of the PREPO AFLOAT ships. The USAMMA LSE updates the data file for each ship as required prior to the transfer of accountability to the gaining units property accountability element. The USAMMA LSE directs the flow of inbound exclusionary item packages from the APOD to the gaining unit. Additionally, the USAMMA LSE provides the gaining unit(s) with quality control information, such as shelf-life extensions. The Food and Drug Administration recalls and suspends medical supplies. Limited technical guidance for medical supplies is provided by the USAMMA LSE. Medical maintenance and logistics personnel from the supporting division or corps should deploy as members of the OPP with the necessary tools and test equipment to place all medical equipment into operation.

## All Other Classes of Supplies

These stocks are issued by USAMC on the tactical STAMIS. Issue occurs using STAMIS files for Unit Level Logistics System, Standard Army Maintenance Systems, Standard Army Retail Supply System-1 Interim (SARSS-1[I]), Standard Army Retail Supply System-Objective, and Direct Support Unit Standard Supply System-Desktop III. The deploying unit commander and USAMC representative revise the accountability transfer to reflect the equipment and supplies actually issued.

**Note.** The unit commander, at his option, may elect to take less than the total quantity of equipment and supplies loaded on or discharged from the ships. USAMC retains accountability for all equipment and supplies not issued.

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# Fm 71-3

## The Armored and Mechanized Infantry Brigade

### APPENDIX H TACTICAL STANDING OPERATING PROCEDURES

#### CONTENTS

Section I.	<a href="#">General</a>
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Section III.	<a href="#">Standing Operating Procedures</a>
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(Classification)

HEADQUARTERS

\_\_\_\_ BDE \_\_\_\_ DIVISION ( )

(Location)

(Date)

\_\_\_\_ BRIGADE (\_\_\_\_) TACTICAL STANDING OPERATING PROCEDURES

## SECTION I. GENERAL

**H-1. Purpose.** This TSOP prescribes guidance for conducting sustained tactical operations. Specifically, it standardizes recurring operational routines, procedures, and responsibilities executed by both organic and supporting organizational elements within the brigade.

**H-2. Application/Scope.** This TSOP covers only wartime operations after deployment. It does not repeat doctrine, tactics, or techniques provided in FMs, TMs, and MTPs. It applies to all organic, assigned, attached, and OPLAN units. It also applies to all supporting units operating in or occupying areas within the brigade's area. All TSOP provisions apply except as modified by OPORDs and OPLANS.

**H-3. Directed Supporting Documents.**

- This TSOP and all subordinate TSOPs incorporate all current provisions of FMs, TMs, Army and division regulations, STANAGs, joint agreements, and status of forces agreements.
- Each brigade staff section develops and implements standard TSOPs to govern

procedures for their own functional areas. Staff section TSOPs must conform to the procedures this SOP contains.

- c. Each subordinate unit publishes a TSOP that supports and conforms to the brigade TSOP. The brigade commander approves subordinate unit TSOPs.

**H-4. Proponency.** The brigade XO and battalion XOs are proponents for their respective TSOPs. Ensuring compliance of established TSOPs throughout the brigade is a command responsibility monitored by commanders and staffs at all levels.

#### **H-5. Changes.**

- a. Submit changes through the appropriate coordinating staff officers to the brigade XO.
  - b. The brigade XO coordinates all changes.
  - c. The brigade commander is the approval authority.
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## **SECTION II. BATTLE COMMAND PROCEDURES**

This section describes operating procedures for brigade command and control. This section is not all inclusive. It establishes the basic guidelines for procedures and operation of CPs. Subordinate units develop their own CP SOPs to conform to guidance in this TSOP.

#### **H-6. Succession of Command.**

- a. Brigade succession of command is brigade commander, maneuver commanders by seniority, brigade XO, and brigade S3. If the brigade has a deputy commanding officer versus an XO, the deputy commanding officer assumes command before the maneuver commanders.
- b. A new commander will notify the next higher headquarters and all subordinate headquarters of the change of the brigade commander.
- c. Succession will be automatic upon the commander's death, capture, or evacuation. The brigade XO should be notified as soon as possible to publish assumption of command orders.

#### **H-7. Alternate Command Posts.**

- a. The brigade alternate main CP when in contact is the TAC CP until the brigade rear CP assumes duties.
- b. The alternate main CP is activated when
  - The brigade's main CP's surviving elements inform the command net of attack, of destruction, or the inability to function.
  - A unit or element reports, and the report has been verified, that the main CP has been destroyed.
- c. If the main CP is destroyed or otherwise inoperable, the following units and/or organizations assume the functions listed in Table H-1 until the main CP is regenerated and operational.
- d. The TAC CP's alternate CP is the command group. Activation criteria are the same as for



the alternate main CP.

- e. The rear CP alternate CP is the FSB CP.

**Table H-1.** Temporary units and organizations functions.

MAIN COMMAND POST FUNCTION	DESIGNATED ALTERNATE
Command Center	Rear Command Post
Operations/Planning/A2C2	Tactical Command Post
S2 Operations	
Fire Support Element	Direct Support Artillery Battalion
Engineer	Engineer Battalion
Air Defense Artillery	Air Defense Artillery Battery
Nuclear, Biological, Chemical	Brigade Chemical Platoon
Signal Officer	Signal Platoon

**H-8. Command Post Shift Cycles.** All brigade and battalion CPs conduct staggered shift changes. Shifts of duty are 12 hours long. Change-of-shift briefs must not disrupt continuous performance of CP functions.

### H-9. Displacement Operations.

- CP displacement for all brigades and battalions is by echelon so command and control of subordinate forces is uninterrupted.
- Before movement, "A" and "B" echelons must have redundant capability to perform CP functions.

### H-10. Security.

- Each CP is responsible for establishing its own security.
- Off-shift personnel sleep in or near fighting positions surrounding the CPs.
- Fighting positions are designated as being 360 degrees around the CP.
- CP security elements establish a security zone from 500 meters to 1 kilometer, dependent on METT-T, around the CP. They conduct the following operations to interdict enemy ground forces:
  - Road checkpoints.
  - Patrols.
  - LPs and OPs.
  - Employment of sensors.
  - Employment of GSR; if available.
- The CP operations NCO coordinates the employment of the security force.
- Access to a CP is controlled only when using classified material. Control is accomplished by limiting access to one entrance and by checking identification.
- Additional security measures are implemented as the situation dictates.

## H-11. Orders and Plans.

- a. Unless otherwise stated, the time used in all brigade OPORDs is ZULU.
- b. The brigade XO and S3 have the authority to issue WOs in the brigade commander's name.
- c. The brigade XO and S3 have the authority to approve and issue written FRAGOs in the brigade commander's name.
- d. The main CP S3 operations element provides sequential numbers preceded by the current fiscal year for all brigade written orders (Example: OPORD 98-1, 98-2, 98-3). The S3 operations element of all subordinate and supporting units is responsible for issuing orders numbers for their command.
- e. The following procedures apply when publishing orders:
  1. The S3 has overall responsibility for orders and plans.
  2. Staff sections review and sign annexes if they are submitted for separate distribution. If they are distributed with the order, annexes are not signed.
  3. The brigade sends verbal FRAGOs by the most expeditious means available (followed by hard copy and overlay by couriers).
  4. The brigade uses the following guide for annexes:
 

<ul style="list-style-type: none"> <li>● Annex A. Task Organization</li> <li>● Annex B. Intelligence</li> <li>● Annex C. Operations Overlay/Concept of Operations</li> <li>● Annex D. Engineer</li> <li>● Annex E. Army Aviation</li> <li>● Annex F. Air Defense</li> <li>● Annex G. Fire Support</li> <li>● Annex H. A2C2</li> <li>● Annex I. Electronic Warfare</li> <li>● Annex J. Signal Operations</li> <li>● Annex K. Deception</li> <li>● Annex L. Psychological Operations</li> <li>● Annex M. Nuclear, Biological, and Chemical Defense/Smoke Operations</li> <li>● Annex N. Military Police</li> <li>● Annex O. Rear Operations</li> <li>● Annex P. Service Support</li> <li>● Annex Q. Movement</li> <li>● Annex R. Civil Affairs</li> </ul>	<ul style="list-style-type: none"> <li>● S3</li> <li>● S2/S3</li> <li>● S3</li> <li>● ENGR</li> <li>● S3/ALO</li> <li>● ADO</li> <li>● FSO</li> <li>● S3/ALO/ADO</li> <li>● S2/FSO/IEW</li> <li>● SO</li> <li>● S3</li> <li>● S3</li> <li>● NBCO</li> <li>● MP</li> <li>● S3/XO</li> <li>● S4</li> <li>● S3/S4</li> <li>● S3</li> </ul>
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- f. Subordinate units acknowledge receipt of OPORDs to the issuing CP. Subordinate units

submit one copy of all orders and overlays to the S3 operations element. S3 operations element is responsible for reproducing copies for internal use and distribution.

- g. When the brigade is not committed to combat operations, the elements listed in Table H-2 receive copies of the OPLANs for the upcoming operations. This list is only used when there is sufficient time to reproduce and distribute a complete order.

**Table H-2.** Elements receiving copies of the operation plan.

<b>COPY NUMBER</b>	<b>ADDRESSEE</b>
1	Brigade Commander
2	File
3	Brigade Main Command Post
4	Brigade Tactical Command Post
5	Division Main Command Post
6	Division Tactical Command Post
7	Subordinate Battalion
8	Subordinate Battalion
9	Subordinate Battalion
10	Attached Battalion
11	Attached Battalion
12	Direct Support Artillery Battalion
13	Engineer Battalion
14	Aviation Battalion
15	Forward Support Battalion
16	S4/S1
17	Commander, HHC
18	Air Defense Artillery
19	Signal Platoon
20	Military Police Platoon
21-21	Adjacent Units
23-25	Spares

- h. The brigade uses FRAGOs and WOs when it is committed to combat operations. Written copies go only to commanders and staff officers who need to know.
- i. Keep the proliferation and copying of orders to the absolute minimum at all times.

1. The brigade S3 maintains a historical file (one copy) of all orders the brigade headquarters issues and of those received from higher and adjacent headquarters. All other copies are destroyed within five days after the complete execution of the base order.
  2. After issuing the brigade order, the brigade S3 assumes control of any division, corps, or joint task force orders in the headquarters.
- j. PLs from higher headquarters will not be renamed.
- k. In brigade OPORDs and on operations maps, brigade objectives (for the battalions) will be used. The related division objective (to the brigade) is in parenthesis before or above the brigade's specified objective. Battalions must incorporate this procedure into their TSOPs.
- l. The brigade orders group assembles to receive or disseminate oral or written orders. Orders-group members assemble by organic transportation at a location and time the commander designates. The commander may call one of three orders-group compositions shown in Table H-3, depending on the situation.
- m. Orders group designees normally do not bring subordinate commanders and staff to orders-group locations. Vehicle drivers provide temporary local security.

Table H-3. Orders-group compositions.

ORDERS GROUP A	ORDERS GROUP B	ORDERS GROUP C
Brigade Commanders with Command Group Battalion Commanders	Brigade Commander . . XO . S3 S2 Battalion Commanders/ S3s/FSOs Aviation Battalion Commander FSCOORD Reconnaissance Troop Commander (SAB)	Brigade Commander . . All Battalion Commanders /S3s/FSOs . All Coordinating Staff All Special Staff Group

## SECTION III. STANDING OPERATING PROCEDURES

**H-12. Task Organization.** Table H-4 shows the routine task organization of the organic brigade elements and represents the brigade's standard combined arms fighting organization for combat. This grouping applies until specifically changed by verbal or written OPORDs, FRAGOs, or WOs. This task organization is the basis for most brigade movement, and tactical employment planning.

**Table H-4. Task organization.**

1st BATTALION	2d BATTALION	3d BATTALION
____Mech Co	____Armor Co	____Armor Co
____Mech Co	____Armor Co	____Armor Co
____Armor Co	____Armor Co	____Armor Co
____Armor Co	____Mech Co	____Mech Co
		<b>BRIGADE TROOPS</b>
		____Recon Element
		____FA Bn (DS)
		____Engr Bn
		____IEW Tm (DS)
		____ADA Btry
		____Sig Plt
		____MP Plt
		____Cml Plt

## H-13. Control Methods and Procedures.

### a. Liaison Officers and Noncommissioned Officers Procedures.

- Under the XO's supervision, the brigade employs organic LO teams to provide reciprocal liaison functions from the brigade to the following units as needed:
  - Adjacent units.
  - Main effort brigade.
  - Follow and support effort brigade.
- The receiving headquarters provide administrative support for LO teams.
- The receiving headquarters administrative support provides for LO teams or individuals, including accommodations and rations; and maintenance, fuel, and lubricants.
- Before leaving the parent headquarters, the LO teams
  - Obtain maps, call signs, overlays, and orders for upcoming operations.
  - Understand the commander's intent.
  - Obtain the current operations status from the operations center.
  - Check all staff sections for information to forward to higher or adjacent headquarters.
  - Note any task organization changes.
  - Obtain written copies of FRAGOs, WOs, contingency plans, and OPLANs (when available).
  - Obtain phone numbers, secure fills, and radio frequencies.
  - Notify the XO of their departure.

5. After arriving at the receiving unit, the LO teams:

- Report to the receiving unit Chief of Staff or XO with their parent unit's current situation, status, location, and plans.
- Contact the parent unit, informing it of their arrival (receiving an update, if required).
- Review the receiving unit's situation and identify problems.
- Exchange information with each receiving unit staff section as required.
- Inform the XO or Chief of Staff of their anticipated departure.
- Obtain required or available copies of FRAGOs, WOs, contingency plans, and OPLANs for subordinate units of the receiving headquarters.

6. After returning to the parent unit, LOs must brief the XO or S3 on the following information pertaining to the supporting headquarters status, including as a minimum:

- Upcoming operations and mission requirements for the supported unit (contingency plans, OPLANs, and FRAGOs).
- The commander's intent for current and future operations.
- Current and projected priorities for CS and CSS.
- Changes in task organization and organization for combat.
- Updated unit locations.
- Any other specific information required by the parent unit's commander.

b. Standard Operational Brevity Code Words. During all radio and wire communications, all units under brigade control will use the operational code words listed below to shorten transmission time.

<b>BINGO</b>	. Switch to second alternate frequency.
<b>BLITZ</b>	Move; move to; move out.
<b>BOG</b>	An area that will not support the unit's heaviest vehicle. For example, "Route HAWK, klick 6 to klick 7, bog."
<b>CANDLES</b>	Artificial illumination. For example, "Request candles, B71."
<b>CHATTER</b>	Communications jamming. For example, "There is chatter on my internal."
<b>CHECKPOINT</b>	An easily identified point such as a bridge or intersection on a route of march.
<b>COLD</b>	Area clean of enemy.
<b>DUMP TIRS</b>	TIRS has been compromised; cease use until further notice.
<b>DYNAMITE</b>	Air defense warning that alerts the force to inbound or attacking aircraft NOW. It requires immediate response.
<b>ESTABLISHED</b>	The unit has consolidated a position at the designated control measure location. For example, "We have established A21."
<b>FIRESTRIKE</b>	An immediate FA mass fire mission that delivers about one module of ammunition.
<b>FIX</b>	Send your location to me. For example, "Fix, out." Send me the location of _____. For example, "Fix T3J22, out."
<b>FLASH, FLASH</b>	Clear the net immediately, critical traffic follows.



<b>GAS</b>	Chemical attack.
<b>GEIGER CHASE</b>	Radiological survey or monitor. For example, "Geiger chase N21 to W33."
<b>GEIGER SOUR</b>	Area monitored or surveyed is contaminated.
<b>GEIGER SWEET</b>	Area monitored or surveyed is not contaminated. For example, "From A21 to W33, Geiger Sour; D51, is Geiger Sweet."
<b>GET</b>	Put specific person designated by call sign on the radio. For example, "Get F11, out."
<b>GUIDONS</b>	Net call. Subordinates answer to branch and unit sequence (infantry, armored, artillery, engineer) by unit numeric designation. Companies use letter sequence; platoons use numeric sequence.
<b>HOSTILE</b>	A unit, vehicle, or aircraft positively identified as enemy.
<b>HOT</b>	An area occupied by enemy.
<b>HOT STEEL</b>	Immediate FA mass mission that delivers about 10 modules of ammunition.
<b>HUSH</b>	Levels of signal security. (HUSH one-free net; HUSH two - directed net; HUSH three - directed net with radio-listening silence imposed.)
<b>IRON HAMMER</b>	replanned FA mission that delivers about one module of ammunition against a specific EA.
<b>JAILBREAK</b>	Radio-listening silence is lifted.
<b>KLICK</b>	One klick equals one kilometer (one grid square on a 1:50,000 or 1:100,000-scale tactical map).
<b>LONG RUN</b>	Movement by alternate bounds.
<b>MIDDLEMAN</b>	Radio relay.
<b>MODULE</b>	A FA 155-mm standard ammunition package consisting of a battalion six DPICM.
<b>NOTHING HEARD</b>	The station called does not (or did not) answer. For example, "X79, this is H22, nothing heard, out."
<b>ORDERS</b>	Oral orders to follow, prepare to copy, put the call sign principal on the radio (see also get).
<b>PLOT</b>	General enemy and friendly summary and commander's assessment; a quick, informal exchange of information between commanders and operations officers; not a formatted report.
<b>PRESENT</b>	A call sign principal report to a specified location. For example, "F37 present at N26, 30 minutes."
<b>RUN-IN</b>	A code word used by a moving unit during a rearward passage of lines to warn friendly units that it is "running" toward them and that enemy forces are pursuing it.
<b>SET</b>	Used during a maneuver to indicate that the sender (bounding unit) has completed its bound and is prepared to overwatch from its present position (see also established).
<b>SILENCE</b>	Absolute radio silence imposed on all net users (said three times).
<b>STAND TO</b>	A time at which a unit has achieved a readiness condition in which it is fully prepared to fight (readiness condition [REDCON] 1).

<b>STAR BURST</b>	A rapid dispersal of a unit to avoid enemy aircraft. Elements turn violently left or right as appropriate, and drive away from each other while jinking. All weapons are oriented to engage enemy aircraft.
<b>SWITCH</b>	Change to an alternate frequency. Specify which frequency by the frequency designation or the call sign of the commander of the frequency to be used. For example, "Switch ALPHA JULIET (Antijamming); Switch N5F32" (the unit frequency whose commander is N5F32).
<b>THUNDER</b>	Immediate FA mass mission that delivers about three modules of ammunition.
<b>THUNDER RUN</b>	A high-speed (50-kph or faster) road movement in march column formation. The commander normally leads.

c. Terrain Index Reference System.

1. The brigade uses TIRS to provide a quick, accurate method of controlling the maneuver of units, passing out control measures, and "fragging" a change in mission. It is used with checkpoints, PLs, and other graphic control measures.
2. The user pinpoints the location by shifting on a horizontal-vertical scale from the TIRS point to the locations.
3. On secure radios, use TIRS in the clear. For example, "From Y17, Right 1.5, up .5." The listener finds point Y17, then measures 1.5 kilometers to the right (east) and .5 kilometers up (north) to find the desired location.
4. On nonsecure methods, encode the numeric portion of the TIRS.
5. TIRS is established from higher to lower. The brigade S3 designates TIRS for the brigades' battle space. Subordinate headquarters may establish supplemental TIRS. TIRS is always alphanumeric. The first character is the only letter and is allocated as shown in Table H-5.

**Table H-5.** Supplemental terrain index reference system.

Brigade Tactical Command Post/Brigade Main Command Post	A
Brigade Rear Command Post	B
1st Battalion	C,D,E,F
2d Battalion	G,H,I,J
3d Battalion	K,L,M,N
Aviation Battalion	O,P
Reconnaissance Element/Troop	R
Artillery Battalion (Direct Support)	S
Attached/Operational Control Units	T,U,V,W
Brigade Spares	X,Y,Z

- a. Do not use TIRS when requesting fires or denoting enemy locations. Use only target numbers or grids.
- b. Subordinate brigade units use only those TIRS designated by the brigade.

6. If a TIRS map or overlay is lost, captured, or compromised, the responsible headquarters will report the code words, "Dump TIRS--(echelon code)" to higher headquarters. Full notification and reestablishment of a new TIRS is a command action. The echelon code indicates the highest level of compromised TIRS: DISTANT = Division, BELOW = Brigade, BASE = Battalion, CELLAR = Company.
- d. Division Recognition Techniques.
1. Combat Vehicle Marking System. The division's combat, CS, and CSS vehicles are marked for rapid identification from the rear and sides (see [Figure H-1](#)). This enhances control during battle by providing quick and easy visual identification of units on the battlefield. It also helps when reconstituting forces and in the prevention of fratricide. This section prescribes standard symbols for marking division vehicles. The following restrictions apply when marking vehicles:
- Use only standard chemical-agent-resistant coating paint (black and sand).
  - Markings apply to all specified vehicles within the organization.
  - Markings consist of numbers and chevrons of the style and size this section describes; locations are standardized.
2. Major Subordinate Command Vehicle Markings. Vehicles of the divisions MSCs are identified by a combination of a single half-chevron and a two-digit numeric identifier. They always begin with a zero and have a single half-chevron placed immediately adjacent and to the right of the numeric identifier. Assigned division MSC numeric identifiers are:
- 00\ Division headquarters and headquarters company.
  - 01\ 1st brigade.
  - 02\ 2d brigade.
  - 03\ 3d brigade.
  - 04\ Aviation brigade.
  - 05\ DIVARTY.
  - 06\ DISCOM.
  - 07\ DIVENG.
3. Unit Identifiers. Table H-6 shows the digits and symbols that are assigned to division units.
4. Marking Size. The space between the numbers and the half-chevron on vehicle markings is 2 inches. Side and rear markings are placed on doors or other flat surfaces and must not be obstructed by equipment, camouflage nets, or other miscellaneous items. Marking location and size may be adjusted to accommodate the type of vehicle.

Table H-6. Unit identifiers.

ID	UNIT	ID	UNIT	ID	UNIT

OO\	Div HHC	03\	3d Bde	05\	DIVARTY
01\	1st Bde	7	___Mech	1	___FA
.					
1	___Mech	8	___Mech	2	___FA
2	___AR	9	___AR	3	___FA
3	___AR	0	___AR	4	___/___MLRS
.					
02\	2d bde	04\	Avn Bde	5	___/___TAB
.					
4	___Mech	3	___AHB	/3	___ADA Bn
5	___Mech	4	___AHB	/1	___Engr Bde
6	___AR	5	___CAC	06\	DISCOM
		6	___AHC	/6	MSB/FSBs
<b>ID</b>	<b>UNIT</b>				
/2	___Cav Sqdn				
/4	___MI Bn				
/5	___Sig Bn				
/7	___MP Co				
/8	___Cml Co				

5. Separate Battalions, Squadrons, and Companies. Vehicles assigned to division units are identified by a half-chevron and a two-digit numeric identifier combination. The first digit of the two-digit identifier designates the battalion or squadron and the second digit identifies subordinate company, troop, or battery-size units. The accompanying half-chevron identifies the vehicle as a division separate battalion, squadron, or company. These half-chevron identifiers are placed immediately adjacent and to the left of the numeric identifiers. Division unit identification markings are:
- /1 Engineer brigade.
  - /2 Cavalry squadron.
  - /3 ADA battalion.
  - /4 MI battalion.
  - /5 Signal battalion.
  - /6 Division main and FSBs. (Note. /60 = MSB; /61 = 1st FSB; /62 = 2d FSB; /63 = 3d FSB).
  - /7 MP company.
  - /8 Chemical company.
6. Company, Troop, and Battery Markings. Company, troop, and battery-level units are assigned the following numbers:
- 0 Headquarters and headquarters company/troop/battery.

- 1 A company/troop/battery.
- 2 B company/troop/battery.
- 3 C company/troop/battery.
- 4 D company/troop/battery.
- 5 E company.

7. Platoon Markings. Platoons (or sections) are identified by the application of a single or double directional chevron. They are applied along with battalion- and company-equivalent identifiers. [Figure H-2](#) shows platoon identifiers.
8. Vehicle Top Markings. When directed, combat vehicles near or used in CAS missions will display one US17 panel on top of the vehicle. Panels must be removed after CAS missions if air superiority is not maintained. Chemical lights are placed on top of all vehicles for night recognition by friendly aircraft. Three lights are placed horizontally on any flat, open surface, protected from observation by enemy forces ([see Figure H-3](#)).

e. Signals.

1. Standard NATO signals are used throughout the brigade to direct tactical formations and tactical actions.
2. Flag Signals.
  - a. Flags are issued to armored and mechanized units for control purposes and as alternate means of communications within these units. Flag signals, once understood, are repeated and executed at once.
  - b. When used alone, flag colors have the following meanings:
    - **Red** danger, or enemy in sight.
    - **Green** all clear, ready, or understood.
    - **Yellow** disregard, or vehicle out of action.
  - c. During periods of limited visibility, flashlights with colored filters or colored chemical lights may be substituted for flags.

f. Alarms and Warning Procedures.

1. Enemy Attack. Warning color codes indicate the probability or likelihood of enemy attack or contact. These color codes apply to all combat action operations:
  - **White** attack or contact is not likely.
  - **Yellow** attack or contact is likely.
  - **Red** attack or contact is in progress or is imminent.
2. Chemical Attack. The warning for a chemical attack is given by a continuous series of three short vehicle horn sounds, metal-on-metal, or electronic chemical alarms, and the words "Gas, Gas, Gas."
3. Air Attack. The warning for an air attack is given by the words "Dynamite, Dynamite, Dynamite" along with the general direction from which the attack is coming. Continuously sounding a vehicle horn augments voice warnings.

4. Indirect Fires. The words "Incoming, Incoming, Incoming" warn of indirect fires.
- g. Threat Condition (THREATCON). The S2 develops THREATCON based on enemy capabilities, actions, sightings, and assessments of terrorist factors. THREATCONs dictate appropriate adjustments to security plans and manning levels of CPs or base defenses. Subordinate commanders may designate higher THREATCONs based on the local situation.
1. The THREATCON is a two-digit warning which is passed throughout the entire division's rear area to ensure receipt. The first digit is numeric (1-5) and is based on the overall threat. The second digit is alphabetic (A-D) and is based on terrorist assessments.
  2. The THREATCON is based on the enemy's capabilities as shown by the IPB, past and present actions of enemy forces in the rear area, and any sightings of enemy forces in the rear area. A level of 1 indicates the lowest assessment of threat; 5 indicates the highest threat assessment; for example:
    1. Enemy capability.
    2. Enemy sightings in area.
    3. Enemy activity in area.
    4. Attack probable.
    5. Attack imminent.
  3. In determining the THREATCON, the assessment factors of existence, capability, history, trends, and targeting are considered.
    - a. **Alpha** indicates a low assessment.
    - b. **Bravo** indicates a medium assessment.
    - c. **Charlie** indicates a high assessment.
    - d. **Delta** indicates an imminent assessment.
- h. Readiness Condition. All brigade elements use the readiness criteria in terms of time to state current readiness status or to direct the attainment of a specific readiness status in anticipation of combat operations.

<b>REDCON ONE:</b>	I am fully ready to execute the assigned mission and will initiate execution on receipt of orders.
<b>REDCON TWO:</b>	I can be ready to execute an assigned mission in 15 minutes.
<b>REDCON THREE:</b>	I can be ready to execute an assigned mission in 30 minutes.
<b>REDCON FOUR:</b>	I can be ready to execute an assigned mission in 1 hour.
<b>REDCON FIVE:</b>	I can be ready to execute an assigned mission in hours. (Specify number if more than one hour.)



- i. Fixed Call Signs. On enemy contact, the brigade uses the fixed call signs shown in Table H-7 when using secure communications.

Table H-7. Fixed call signs

ELEMENT	CALL SIGN
Brigade	TANK
Brigade Main Command Post	TANK X-RAY
Brigade Tactical Command Post	TANK OSCAR
Brigade Rear Command Post	TANK ZULU
1st Battalion	STEEL
2d Battalion	BULLDOG
3d Battalion	BAYONET
Aviation Battalion	HAWK
Artillery Battalion (Direct Support)	WARLORD
Forward Support Battalion	PACK MULE
Engineer Battalion	SAPPER
Intelligence Electronic Warfare Team	SKYHAWK
Air Defense Artillery Battery	THUNDERBOLT
Signal Platoon	WAVES
Military Police Platoon	DILLION
Chemical Platoon	BLACK FLAG
	SUFFIX
Commander	6
Executive Officer	5
Deputy	Suffix + Bravo (that is 3B)
Command Sergeant Major	7
S1	1
S2	2
S3	3
S4	4
S5	8
Scout	29
Battalion Maintenance Officer	10
Fire Support Element/Coordinator	30
Chemical/NBC	31
Air Liaison Officer	32
Army Airspace Command and Control	33

Engineer	34
Signal Officer	9
Provost Marshal Officer	35
Inspector General	36
Public Affairs Officer	37

Table H-7. Fixed call signs (continued).

ELEMENT	SUFFIX
Staff Judge Advocate	38
Chaplain	39
<b>Note.</b> The brigade uses nickname, historical phone directory, or call-sign listings (names listed here are examples only).	
Surgeon	40
S3/Air 3	ALPHA
Liaison Officer	LIMA
Main Command Post Operations	MIKE
Tactical Command Post Operations	TANGO
Rear Command Post Operations	ROMEO
Net Call Station	NOVEMBER
Driver	DELTA
Pilot	PAPA
Radiotelephone Operators	YANKEE
<b>PLATOON NET DESIGNATIONS</b>	
1st Platoon/Scouts	Red
2d Platoon/Mortar	White
3d Platoon/Support	Blue
4th Platoon/Maintenance	Green
Communications Platoon	Orange
Medical	Black
Chemical/NBC Reconnaissance Platoon	Yellow
<b>PLATOON MEMBER DESIGNATIONS</b>	
Platoon Leader	6
Platoon Leader Wingman/1st Squad	1
Platoon Sergeant	7
Platoon Sergeant Wingman/2d Squad	2
3d Squad	3
4th Squad	4

Table H-7. Fixed call signs (continued).

ELEMENT	PREFIXES
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**COMPANY/TROOP/BATTERY PREFIXES**

A Company/Troop/Battery APACHE	
B Company/Troop/Battery BANSHEE	
C Company/Troop/Battery COMMANCHE	
D Company/Troop/Battery DRAGONS	
AT Company/SVC Battery EAGLE	
Headquarters and Headquarters Company/Troop/Battery FOXTROT	

**COMPANY SUFFIXES**

Commanding Officer	6
Executive Officer	5
First Sergeant	7
1st Platoon Leader	16
2d Platoon Leader	26
3d Platoon Leader	36
Weapons Platoon Leader	46

**ATTACHED/CROSS-ATTACHED SUFFIXES**

Armor	T
Mechanized	M
Engineer	E
Ground Surveillance Radar	R
Air Defense Artillery	A
Attack Helicopter	H

**Note.**

If you are a mechanized infantry company commander (C Company) cross-attached to a tank battalion, your call sign would be CM6. This avoids the confusion of having two C Companies in the net.

**H-14. Tactical Road Movement.**

- a. Responsibility. The S3 operations, located at the brigade's main CP, is responsible for all tactical road movement planning. The TAC CP controls tactical movements.
- b. Planning Factors. (Planned for standard task organization.)
  1. Rate of March.
    - On all-weather, hard-surfaced, four-lane, limited-access roads, the rate of march will be 29 mph or 48 kph.
    - On all other roads, 20 mph or 32 kph.
    - In congested urban areas, 12 mph or 20 kph.
    - During blackout, 10 mph or 16 kph.

- During Blitz or Thunder Run, at the fastest speed possible.

## 2. Intervals

- Between vehicles: daylight, 50 meters. At night and within city or village limits, 25 meters.
- Between march units: 2 minutes.
- Between serials: 5 minutes.

## 3. Convoy Composition.

- Ten to 24 vehicles per march unit (maintain tactical integrity).
- Two to 5 march units per serial (maintain tactical integrity).
- Maximum 5 serials per convoy (maintain tactical integrity).

## 4. Halts. Periodic rest and maintenance halts planned and conducted for 20 minutes after the first 2 hours; 10 minutes every 2 hours thereafter.

## 5. Illumination. Vehicles in a convoy will have their lights on low beam. Blackout driving will be in effect forward of the light line if required by light conditions.

## 6. Convoys moving in the same direction will not pass one another without permission from the TAC CP.

## 7. Reports. The MPs will call over secure nets, in all convoy reports (lead vehicles crossing point) at SPs, TCPs, RPs, and any other critical points when the unit is crossing.

## 8. Convoy Control.

- Each battalion is provided a block of time for movement.
- Subordinate battalions commanders will appoint serial and march unit commanders.
- Disabled vehicles will be left to the side of the route of march for pick-up by trailing maintenance and recovery elements.

## 9. Security. At least one alert air guard or observer will be posted per vehicle during movement; weapons are to be oriented for 360-degree engagements.

## c. Standard Orders of March for Tactical Movements. The brigade will conduct tactical movements on one or two routes.

### 1. One route of march:

- Brigade Unit
- Armor Battalion
- Brigade TAC CP
- Military Police Platoon
- Artillery Battery
- Mechanized Battalion
- Artillery Battalion(-)
- Main CP

- Armor Battalion(-)
- FSB Platoon
- Brigade Troops
- Mechanized Company

2. Two routes of march:

**ROUTE A**

Battalion Scouts  
 Quarters Parties  
 Combat Unit  
 Mechanized Battalion  
 Artillery Battalion(-)  
 Armor Battalion  
 FSB Platoon

**ROUTE B**

Battalion Scouts  
 Quarters Parties  
 Combat Unit  
 Armor Battalion  
 Artillery Battalion(-)  
 Brigade Troops

3. Standard orders of march are subject to redesign based on the nature of future operations and METT-T.

d. Units task-organized to support an organic brigade unit (DS, attached, OPCON, assigned) move with the supported unit. All others are inserted into the march order as the situation dictates.

e. Route Priorities.

1. Movement of tactical units and unit displacement have priority over other moves. Other priorities are as follows:

1. MEDEVAC.
2. Combat unit.
3. CS.
4. CSS.
5. CSS resupply moves in order of transportation priority.
6. Combat unit moves to rear to assembly areas.
7. CS units move rearward.
8. CSS moves to rear.
9. Infiltration moves (moves without clearance).

2. The brigade S4 denotes routes in the brigade's sector (except MSRs), and reports their status through the FSB to the DISCOM MCO.

3. The S3 IAW the division highway regulation plan develops the traffic circulation plan.

f. Refugee and Host-Nation Traffic Movements.

1. Refugee and host-nation traffic is routed on secondary roads (other than MSRs) when possible.
2. Movements of host-nation traffic (10 or more vehicles, or 100 or more people) must

be coordinated with the S3 through the division transportation officer before movement.

3. With host-nation law-enforcement personnel, brigade MPs will assist, direct, and/or deny movement of host-nation traffic and refugees.

#### **H-15. Assembly Area Occupation.** (This also applies to occupation of attack positions.)

##### **a. Composition of Assembly Areas.**

1. The brigade establishes two separate and distinct assembly areas within the division assigned brigade assembly area, a tactical assembly area, and the BSA. They are normally from 17 to 25 kilometers apart.
2. During the occupation of all assembly areas, 12 o'clock is always North.
3. Units occupying the BSA report to the rear CP. Other elements report to the S3 operations at the main CP.
4. The brigade tactical assembly area is occupied by the following elements:

TAC CP and Main CP (collocated)	Center Sector
Artillery Battalion, Engineer Battalion, and Brigade Troops	Center Sector
1st Battalion	12-4
2d Battalion	4-8
3d Battalion	8-12

5. The BSA is occupied by the following elements:

Rear CP	Center Sector
1st Battalion Field Trains	10-12
2d Battalion Field Trains	12-2
3d Battalion Field Trains	2-4
Artillery Battalion Field Trains	4-6
FSB	6-8
Engineer Field Trains	8-10

- b. **Quartering Party Procedures.** The brigade's quartering parties move to and occupy its assembly area in two phases. After receiving the brigade's movement WO, all phase I elements move to a location designated by the brigade S3, near the vicinity of the TAC CP, four hours before the phase II start time. Phase I elements have priority on all routes during this movement.

1. **Phase I (Battalion Scouts).** Battalion scout platoons augmented with ADA and engineer sections conduct route reconnaissance and area reconnaissance of assembly areas. Designated mechanized infantry units follow the scouts and emplace TCPs as necessary.
2. **Phase II (Battalion Quartering Party).** Battalion quartering parties consist of battalion CP elements and one vehicle per company-size element. Company quartering parties consist of one vehicle per platoon.

- c. **Unit Quartering Party Procedures.** The unit quartering party prepares the assembly area for occupation by the main body by :



- Reconnoitering and marking the route from the RP to the designated assembly area and posting guides as required at points of possible confusion.
- Surveying assembly area for NBC contamination and reporting and marking contamination as directed.
- Securing the assembly area from refugees and local residents.
- Locating and marking positions for each CP.
- Placing guides at the RP.
- Placing one guide per platoon at each company team RP.
- Monitoring the progress of the main body and reporting any conditions that might significantly alter the planned march to and occupation of the assembly area.

d. Unit Occupation Procedures.

1. The main body moves without stopping through the RP to the designated location to pick up its guides.
2. Each subordinate element flashes a standard unit-recognition signal at the RP, and pick up their guide without stopping.
3. Vehicles do not stop or halt until reaching the platoon RP. The quartering party then guides the lead vehicles to their locations.
4. Units verify final vehicle and weapons positioning. They also clarify fire planning and obstacle plans, if necessary.
5. All units refuel (rearm if necessary) from organic assets on arrival.
6. Units must report if they have lost 10 percent or more of their strength (vehicles or weapons systems) during the movement.

e. Communications.

1. Wire communications are used within each assembly area.
2. All quartering parties report SPs, checkpoints, RPs, and mission-completes to the parent headquarters' CP via FM or MSE communications.
3. Mission-complete indicates that all quartering party tasks have been performed, unit areas have been designated and marked, and guides are in position to guide main body elements to their positions.
4. The subordinate unit SOPs must establish recognition signals to aid in recognition and identification of parent units during times of limited visibility.

## **H-16. Other Tactical Operating Procedures.**

a. Linkup Operations.

1. Coordination Checklist (not in priority):
  - Command relationship of units and the effective time.
  - Enemy situation and obstacle plans.
  - Mutual recognition signals.
  - Communications plan.

- Schemes of maneuver and graphic control measures.
- FS and FSCMs.
- Primary and alternate linkup points.
- Requirements for liaison exchange.
- Assistance required.
- Alternate plans if initial linkup fails.

2. Stationary Unit. Assistance the stationary unit can normally provide:

- Guides.
- Lanes through obstacles of airhead.
- Traffic control.
- Limited logistic, medical, and maintenance support.
- Information on recent enemy activity.

3. Moving Unit. Assistance the moving unit can normally provide:

- Limited logistic, medical, and maintenance support.
- FS.

b. Relief-in-Place Operation.

1. Coordination Checklist (not in priority):

- Time for the relief.
- Routes, guides, and linkup points.
- Assembly areas and positions to be occupied.
- Liaison, reconnaissance, and advance parties.
- FSCM.
- Obstacle plans.
- Passage of command.
- Call signs.
- Frequencies.
- Recognition signals.
- The disposition of relieved unit supplies (POL, ammunition, rations) that the relieved unit will not take with it.
- R&S plan.
- Direct fire plans.
- Enemy situation.
- Friendly situation.

2. Sequence of Events (for relief in contact and not in contact).

- a. After receiving the division WO, procedures for tactical road movement go into effect. The brigade reconnaissance troop conducts route reconnaissance from the brigade's present location to the AO of the unit to be relieved and

makes initial linkup with the unit being relieved.

- b. The brigade's TAC CP follows to collocate with the TAC CP of the unit being relieved. It establishes linkup points for battalion coordination parties.
- c. Passage of Command. The incoming unit brigade commander assumes command of the sector and OPCON of all units within the sector at the established SP time for the relieving unit to begin moving from an assembly area to conduct the relief.

c. Forward Passage of Lines. (Applies only when enemy forces are not within direct or indirect-fire range of the in-place unit.)

1. Coordination Checklist (not listed in priority):

- Time for the passage.
- Routes, guides, and linkup points.
- Assembly areas.
- Liaison, reconnaissance, and advance parties.
- Passage corridor SP and RPs through the in-place unit.
- FS (direct and indirect).
- Obstacle locations and lanes.
- Passage of command.
- Call signs.
- Frequencies.
- Recognition signals.
- ADA coverage and weapons control status.
- Enemy and friendly situation.

- 2. Sequence of Events. The TAC CP moves to collocate with the TAC CP of the unit being passed through as well as establishes linkup points for battalion coordination parties and begins coordination.
- 3. Passage of Command. The passing brigade assumes control of the unit it passes at the established SP for movement out of an assembly area to begin the passage.

d. Rearward Passage of Lines.

1. Sequence of Events. The TAC CP coordinates the following:

- The location of in-place units and obstacles throughout the in-place unit's area.
- The passing unit's tactical disposition.
- The location of the BHL.
- The tactical assembly area and routes out of the tactical assembly area (if not provided by division).
- The passage lanes and PPs to support the scheme of maneuver.
- The contact point for each passage lane and the guide requirements.
- The routes to each contact point.

- The route from each passage lane to the tactical assembly area.
  - Detailed locations of units and obstacles.
  - The locations of rally points.
  - The CSS responsibilities.
  - Arrangements for additional reconnaissance.
2. Passage of Command. Tactical control of the passing unit passes to the stationary unit at a designated time established by higher headquarters or at a time coordinated between the two units.
  3. Sequence of Passage:
    - Rear CP with MP platoon.
    - FSB.
    - Chemical platoon.
    - Main CP.
    - Engineer battalion.
    - Aviation battalion.
    - Reserve (if not committed).
    - Supporting effort battalion with attachments.
    - TAC CP.
    - Command group.
    - Main effort battalion.
  4. Isolated or Cut-Off Units or Individuals. Units or individuals isolated, cut off, or forced to conduct passage of lines through an area or unit other than as previously coordinated will use the following procedures:
    - a. Attempt radio contact.
    - b. Establish contact with the stationary unit using challenge, password, and recognition signals in SOIs.
    - c. Execute passage.
  5. Hasty Passage (Run-in). Run-in is used when enemy actions prevent the execution of a previously coordinated passage.
    - a. The run-in unit disengages and moves into formation for passage.
    - b. On the radio, the run-in unit provides:
      - The complete call sign.
      - Prowords. (For example, "Run-in, Run-in.")
      - Number of vehicles in the passing element (in the clear).
      - Transmission authentication. (For example, "This is W7N36, run-in, run-in, three. I authenticate DELTA, FOXTROT.")
    - c. Retransmit the above data until receiving a reply or completing passage.
    - d. The moving unit stays on clearly defined routes; it conducts run-ins with

vehicle headlights on, weapons oriented toward the enemy, and armored vehicle recognition signs facing friendly units.

e. River Crossing Operations.

1. Crossing Force Headquarters.

- a. Location: brigade TAC CP. When available a division engineer group CP collocates with the brigade TAC CP.
- b. Crossing force commander: appointed by division commander.
- c. Crossing force engineer: senior engineer element commander.

2. Crossing Area Headquarters.

- a. Crossing area commander: brigade XO.
  - b. Crossing area engineer: senior engineer supporting the brigade.
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# FM 71-3

## The Armored and Mechanized Infantry Brigade

### APPENDIX I DECISION MAKING

TRADOC Pam 525-5 states "future technology will require the Army to reassess time honored means of battle command to recognize that in the future, military operations will involve the coexistence of both hierarchical and internetted, nonhierarchical processes." The deliberate decision-making process (DDMP) is not easily used in a rapid, crisis situation where time is critical. Once operations have commenced, circumstances may make it difficult or impossible to always use the DDMP. The most detailed estimates cannot anticipate every possible branch or sequel, every action of the enemy, or changes in mission directed from higher headquarters. Even the most successful operations may "outrun" the initial plan under continuous operations.

The goal of the commander and staff is to maintain the initiative and anticipate the outcome of the current operation in order to determine the future requirements and set conditions for success. The brigade commanders position on the battlefield and the continuous focused information (CCIR) from his staff allow the commander to assess the operations and adjust as necessary. In addition, the commander must ensure he maintains control of the decision-making process.

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Section I.	<a href="#"><u>Deliberate Decision-making Process</u></a>
Section II.	<a href="#"><u>Abbreviated or Accelerated Decision-making Process</u></a>

#### SECTION I. DELIBERATE DECISION-MAKING PROCESS

Military decision making revolves around an established proven procedure called the DDMP. The relationship among the TLPs, decision making, and the estimate of the situation is depicted at Figure I-1. A more detailed discussion of the DDMP is found in FM 101-5.

The brigade commander is key to conceptualizing, planning, preparing, and executing operations - this is his personal responsibility. The commander participates in and propels the process. From the start of the process to the final product, the personal role of the commander is central. The role of the staff is defined and focused by the direction provided by the commander.

The DDMP is a continuous and sequential process, allowing the commander and his staff to examine possibilities of the battlefield and reach logical decisions. The key elements of the DDMP are -



- Information gathering (estimates).
- Mission analysis.
  - Restated mission.
  - Commanders guidance.
- COA development, analysis, comparison, and recommendation.
- COA approval.
- Preparation, approval, issuance of plans, orders, and FRAGOs.
- Execution.

The DDMP can require substantial time to develop the detail required to arrive at a good military decision. The commander routinely uses this method when adequate planning time and sufficient staff support are available and there is opportunity to thoroughly examine numerous friendly and enemy COAs. The DDMP, because of limited staff, is best utilized before operations commence. The key component is the commander participating in and controlling the entire process. He provides adequate guidance, and continual analysis of his mission and his units tasks, while receiving staff input at relevant intervals.

In DDMP, the commander uses the entire staff with its functional orientation and actively participates, guiding and making decisions as the staff works through the procedure. The staff has time to explore the full range of probable and likely enemy COAs as well as to develop, analyze, and compare its own COAs. The XO is the primary staff officer who ensures the staff is accomplishing their requirements throughout the DDMP, to include providing pertinent information to the commander.

The DDMP increases the commander time to perform critical troop-leading tasks while at the same time makes optimum use of the talents of his staff. The commander uses formal and informal briefings to further maneuver the staff through this procedure more efficiently. Such interaction helps the staff resolve questions they uncover and ensures the entire staff is involved in the total process. Regardless of the time available, the agreed upon solution (COA) is still directly linked to how well both commander and staff accomplish each phase.

The DDMP provides a firm basis for continued decision-making during continuous operations. It is extremely important that the deliberate process be used initially, returned to whenever operations tempo allows, and practiced during all training events.

Figure I-1. Planning and execution.

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## SECTION II. ABBREVIATED OR ACCELERATED DECISION-MAKING PROCESS

Any abbreviated or accelerated planning process requires the commander to have a high level of expertise, intuition, creativity, and battlefield awareness. He and his staff must quickly decide on feasible COAs, use existing information on METT-T and detailed estimates, and arrive at a COA that meets the mission requirements. This COA may not be optimal. Obviously, as time for the decision-making process decreases, the commanders personal involvement in performing the process increases, either with the staff or by himself. The commander has

several options he may choose to abbreviate the process. He may save time by shortening or foregoing an in-depth estimate, other than what has been accomplished previously. The commander may limit the number of COAs for development and subsequent analysis; and he may choose to prescribe an abbreviated method in the unit SOP. Under extreme time constraints the commander will perform the mission analysis himself and provide the staff with the restated mission and his intent. The commander must ensure the process is under his control and steps within the process are not arbitrarily ignored. The XO must have a thorough understanding of the on-going operation, the commanders guidance and intent, and continually exercise the staff in all critical steps of the decision-making process, as time and conditions permit. The staff will continue to provide guidance as necessary, coordinate actions, and implement the commanders decisions.

To a varying extent, staff members are always assessing the current operation and updating their estimates. Detailed planning prior to operations provides the commander and staff with components of information they need to make knowledgeable choices and decisions as operations continue.

Deliberate process productions (such as weather analysis, terrain analysis, enemy order of battle, and general situation analysis) usually do not change significantly during the initial stage of combat operations if estimates are kept current. Modifications are much simpler than returning to a zero base. These products, such as DSTs and event templates, identify critical points in the plan that require decisions and commanders consideration. Staff members should maintain sufficient, updated information on the changes from their initial estimates to be able to give the commander an indication of their ability to support new mission requirements.

Regardless of how the commander chooses to abbreviate the decision-making process, two areas he should always include are wargaming and risk assessment. Wargaming provides the opportunity to synchronize the BOS across the COA. It may be the only time the staff and subordinates test the suitability, feasibility, and acceptability of the COA. Risk assessment must be done to ensure a solution to a task or set of tasks will not render the force incapable of anticipating operations or lower the units combat effectiveness below acceptable levels.

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# FM 71-3

## The Armored and Mechanized Infantry Brigade

### GLOSSARY

A B C D E F G H I J K L M N O P Q R S T U V W X

#### A

A2C2	Army airspace command and control
AA	assembly area
AAA	antiaircraft artillery
AACG	arrival airfield control group
AAFAD	all arms for air defense
AAR	after-action review
ABCS	Army battle command system
ABE	assistant brigade engineer
ABMOC	air battle management operation center
ACA	airspace coordination area
ACE	armored combat earthmover
ACO	airspace control orders
ACP	air control points
ACR	armored cavalry regiment
ACT	air cavalry troop; analytical control team
actg	accounting
ACU	area common user
A/DACG	arrival/departure airfield control group
AD	armor division
ADA	air defense artillery
ADALO	air defense artillery liaison officer
ADAM	area denial antipersonnel mine
ADAO	assistant division air defense officer
ADC	area damage control
ADC-M	assistant division commander for maneuver
ADCOORD	air defense coordinator
ADCT	air defense coordination team
ADO	air defense officer
ADW	air defense warning
AF	Air Force
AFAS	advanced field artillery system
AFAC	airborne forward air controller
AFCE	Allied Air Forces Central Europe
AFCENT	Allied Forces Central Europe
AFV	armored fighting vehicle

AG	adjutant general
AH	attack helicopter
AGL	above ground level
AGM	attack guidance matrix
AHB	attack helicopter battalion
AHC	attack helicopter company
AI	area of interest
AK	automatic remote keying
A/L	administrative/logistics
ALO	air liaison officer
AM	amplitude modification
amb	ambulance
ammo	ammunition
anal	analysis
ANGLICO	air and naval gunfire liaison officer
AO	area of operation
AP	antipersonnel
APC	armored personnel carrier
APDS-T	armor-piercing discarding sabot-tracer
APERS	antipersonnel
APFSDS	armor-piercing fin-stabilized discarding sabot
APFSDS-T	armor-piercing fin-stabilized discarding sabot-tracer
API	armor-piercing incendiary
APICM	antipersonnel improved conventional munition
APOD	aerial port of debarkation
APOE	aerial port of embarkation
ARFOR	Army forces
armd	armored
ARNG	Army National Guard
ARTEP	Army Training and Evaluation Program
arty	artillery
ASAS	all-source analysis system
ASCC	Army service component commander
ASL	authorized stockage list
aslt	assault
ASOC	air support operations center
ASP	ammunition supply point
AST	ammunition support team
AT	antitank
ATA	air to air
ATACMS	Army tactical missile system
ATB	attack battalion
ATCCS	Army tactical command and control system
atchd	attached
ATGM	antitank guided missile
ATHS	airborne target handoff system
ATIZ	artillery target intelligence zone
atk	attack

ATP	ammunition transfer point
attn	attention
AUEL	automated unit equipment list
autmv	automotive
AVIM	aviation intermediate maintenance
AVLB	armored vehicle launched bridge
avn	aviation
AVUM	aviation unit maintenance
AWACS	airborne warning and control system
AWIS	Army worldwide information system
AXP	ambulance exchange point
AWOL	absent without leave

## B

BAI	battlefield air interdiction
BAS	battlefield automated systems
BCC	battlefield circulation control
BCV	battle command vehicle
BCOR	brigade office of record
BDA	battle damage assessment
BDAR	battle damage assessment and repair
bde	brigade
BFACS	battlefield functional area command and control system
BDU	battle dress uniform
BFV	Bradley Fighting Vehicle
BGU	basic generator unit
BHL	battle handover line
BII	basic issue items
BLPS	ballistic laser protection system
BMNT	beginning morning nautical twilight
BMO	battalion maintenance officer
BMT	battalion maintenance team
bn	battalion
BOS	battlefield operating system
BP	battle position
BRIDGEREP	bridge report
BSA	brigade support area
BSFV	Bradley Stinger fighting vehicle
btry	battery

## C

C2	command and control
C2V	command and control vehicle
C3	command, control, and communication
C3I	command, control, communications, and intelligence
C4I	command, control, communications, computers, and intelligence
CA	civil affairs
CAAD	combined arms air defense
CAA	combined arms Army
CAB	combat aviation brigade

cal	caliber
CANA	convulsant antidote nerve agent
CARC	chemical agent resistant coating
CAS	close air support
CBR	chemical, biological, radiological
cbt	combat
CBU	cluster bomb unit
CCIR	commander's critical information requirements
CCL	combat configured loads
CDMP	combat decision-making process
cdr	commander
CEB	clothing exchange and bath
CEO	communications electronic officer
CEV	combat engineer vehicle
CEWI	combat electronic warfare and intelligence
CFA	covering force area
CFL	coordinated fire line
CFFZ	call for fire zone
CFHQ	crossing force headquarters
CFL	coordinated fire line
CFV	cavalry fighting vehicle
CFZ	critical friendly zone
cgo	cargo
CH	cargo helicopter
chem	chemical
CHEMWARN	chemical warning
CI	counterintelligence
CIF	central issue facility
CINC	commander-in-chief
CIRS	commander's critical information requirements
C&J	collection and jamming
CLAMMS	cleared lane mechanical marking system
CLU	command and launch unit
cm	centimeter(s)
cmd	command
cml	chemical
CMMC	Corps Materiel Management Center
CMO	civil-military operations
CMOC	civil-military operations center
CMT	company maintenance team
CNR	combat net radio
CNRI	combat net radio interface
cntr	center
CNV	combat net variable
co	company
COA	course of action
COLT	combat observation lasing team
comm	communication



COMMZ	communications zone
COMSEC	communications security
CONOPS	contingency operations
CONPLAN	contingency plans
CONUS	continental United States
COP	command and observation post
COSCOM	corps support command
CP	command post
CPT	captain
CPX	command post exercise
CRC	Continental United States Replacement Center
CROSSREP	cross report
CRP	combat reconnaissance patrol
CS	combat support
CSC	combat stress casualty
CSG	corps support group
CSM	command sergeant major
CSR	controlled supply rate
CSS	combat service support
CSSCS-EAC	combat service support and control system for echelon above corps
CVRT	criticality, vulnerability, recuperability, and threats
CZ	sensor zone

## D

D-day	deployment day
DA	Department of the Army
DACG	departure airfield control group
DAG	divisional artillery group (opposing forces)
DAO	division ammunition officer
DCO	deputy commanding officer
DDMP	deliberate decision-making process
decon	decontamination
DEH	Directorate of Engineering and Housing
det	detachment
DEW	directed energy weapon
DISCOM	division support command
div	division
DIVARTY	division artillery
DLIC	detachment left in contact
DMD	digital message device
DMMC	division materiel management center
DNVT	digital nonsecure voice terminal
DOCEX	document exploitation
DODAC	Department of Defense Ammunition Code
DOL	Directorate of Logistics
DP	decision point
DPICM	dual-purpose improved conventional munition
DRB	division ready brigade
DRF	division ready force

DS	direct support
DSA	division support area
DST	decision support template
DSVT	digital subscriber voice terminal
DTG	date-time group
DTO	division transportation officer
DTOC	division tactical operations center
DZ	drop zone

## E

EA	engagement area
EBA	engineer battlefield assessment
EAC	echelons above corps
ECCM	electronic counter-countermeasures
ECM	electronic countermeasures
EEFI	essential elements of friendly information
EEI	essential elements of information
EN	electronic notebook
engr	engineer
EOC	emergency operations center
EOD	explosive ordnance disposal
EP	electronic protection
EPW	enemy prisoner(s) of war
equip	equipment (in illustration)
ES	electronic warfare support
est	establish
EW	electronic warfare
EXTAL	extra time allowance
1SG	first sergeant

## F

FA	field artillery
FAAD	forward area air defense
FAADC3I	forward area air defense command and control communications and intelligence
FAAR	forward area alerting radar
FAC	forward air controller
FARP	forward arming refuel point
FARV	future armored resupply vehicle
FASCAM	family of scatterable mines
FASP	field artillery support plan
FAST	forward area support team
FAX	facsimile
FBCB2	Force XXI battle command--brigade and below
FCT	firepower control teams

FDC	fire direction center
FEBA	forward edge of battle area
FED	forward entry devices
FIST	fire support team
FISTV	fire support team vehicle
FLIR	forward looking infrared radar
FLOT	forward line of own troops
FM	field manual
FO	forward observer
FofF	fields of fire
FOOGAS	(petroleum-based expedient inflammable material)
FORSCOM	Forces Command
FPF	final protective fire
FPL	final protective lines
FRAGO	fragmentary order
FS	fire support
FSB	forward support battalion
FSCL	fire support coordination line
FSCM	fire support coordination measures
FSCOORD	fire support coordinator
FSE	fire support element
FSM	fire support measures
FSM	fire support measures
FSE	fire support element
FSO	fire support officer
fwd	forward

## G

G1	assistant chief of staff (personnel)
G2	assistant chief of staff (intelligence)
G3	assistant chief of staff (operations and plans)
G3-Air	air operations and planning officer
G4	assistant chief of staff (logistics)
gal	gallon
GBS	ground base sensor
GCCS	global command and control system
GBU	guided bomb unit
GEMSS	ground-emplaced mine scattering system
GIRS	grid index reference system
GLD	ground laser designator
GMRD	guard motorized rifle division
GPS	global positioning system/ gunner's primary sight
gren	grenade

grp  
GS  
GSR  
GT  
G/VLLD

group  
general support  
ground surveillance radar  
gun target  
ground/vehicle laser locator designator

## H

HAB  
HC  
HE  
HE-APERS  
HEAT  
HEAT-T  
HEDP  
HEI  
HEI-T  
hel  
HEMTT  
HEP-T  
HET  
HF  
HHB  
HHC  
HHD  
HHT  
HIMAD  
hldg  
HMMWV  
HPT  
HPTL  
hq  
hr  
HSS  
HUMINT  
HVT

heavy assault bridge  
hydrochlorethane  
high-explosive  
high-explosive antipersonnel (ammunition)  
high-explosive antitank  
high-explosive antitank-tracer  
high-explosive dual-purpose  
high-explosive incendiary  
high-explosive incendiary-tracer  
helicopter  
heavy expanded mobile tactical truck  
high-explosive plastic tracer  
heavy equipment transport  
high frequency  
headquarters and headquarters battery  
headquarters and headquarters company  
headquarters and headquarters detachment  
headquarters and headquarters troop  
high-to-medium-altitude air defense  
holding  
high mobility multipurpose wheeled vehicle  
high payoff targets  
high payoff target list  
headquarters  
hour  
health service support  
human intelligence  
high-value target

## I

IAW	in accordance with
ICM	improved conventional munition
IEW	intelligence and electronic warfare
IFF	identification, friend, or foe
IEWO	intelligence and electronic warfare officer
IEWSE	intelligence and electronic warfare support element
IFSAS	initial fire support automation system

IFF	identification, friend, or foe
IFV	infantry fighting vehicle
IG	inspector general
inf	infantry
insp	inspection
intel	intelligence
INTREP	intelligence reports
INTSUM	intelligence summary
IP	initial point
IPB	intelligence preparation of the battlefield
IPW	prisoner of war interrogation
IR	infrared
IRC	initial ready company
ITB	independent tank battalion
ITO	installation transportation office
ITV	improved TOW vehicle
IVIS	intervehicular information system

## J

JAAT	joint air attack team
JAG	Judge Advocate General
JOPES	joint operation planning and execution system
J-SEAD	joint suppression of enemy air defenses
JSTARS	joint surveillance target attack radar system

## K

KE	kinetic energy
KEM	kinetic energy missile
KIA	killed in action
km	kilometer(s)
kmih	kilometers in the hour
kmph	kilometer(s) per hour (as a unit of measure that indicates motion)
kph	kilometers per hour (as a unit of measure only)

## L

LADW	local air defense warning
LAN	local area network
LANTIRN	low-altitude navigation and targeting infrared for night
LAV-AD	light armor vehicle air defense
lb	pound
LBE	load-bearing equipment
LC	line of contact
LD	line of departure
LD/LC	line of departure is line of contact
ldr	leader

LLTR	low-level transit route
Inchr	launcher
LO	liaison officer
LOA	limit of advance
LOC	line(s) of communication
log	logistics
LOGCAP	logistical civil augmentation program
LOGPAC	logistics package
LOGSTAT	logistics status
LOS	line of sight
LOSAT	line-of-sight antitank
LOTS	logistics-over-the-shore
LP	listening post
LRF	laser range finder
LRP	logistic release point
LSA	logistic support area
LSE	logistics support elements
LST	laser-spot tracker
lt	lieutenant
LZ	landing zone

## M

m	meter(s)
MAG	Marine Air Group
maint	maintenance
maj	major
MALS	Marine aviation logistics squadron
MANPAD	man-portable air defense
MarDiv	Marine Division
MBA	main battle area
MCC	movement control center
MBT	main battle tank
MCO	movement control officer
MCP	maintenance collection point
MCS	maneuver control system
MCT	movement control team
mech	mechanized
med	medical
MEDEVAC	medical evacuation
MEF	Marine Expeditionary Force
METL	mission essential task list
METT-T	mission, enemy, terrain, troops and time available
MG	machine gun



mgmt	management
MHE	materiel-handling equipment
MI	military intelligence
MIA	missing in action
MICLIC	mine clearing line charge
mih	miles in the hour
MIJI	meaconing, intrusion, jamming, and interference
MIJREP	meaconing, intrusion, jamming, and interference report
min	minutes
MK	manual remote keying
MKT	mobile kitchen trailers
MLRS	multiple launched rocket system
mm	millimeter(s)
MMC	Materiel Management Center
MOPMS	modular pack mine system
MOPMS	module packed mine system
MOPP	mission-oriented protectiveion posture
mort	mortar
MOS	military occupational specialty
MOUT	military operations on urbanized terrain
MP	military police
mph	miles per hour
MR	motorized rifle
MRB	motorized rifle battalion
MRC	motorized rifle company
MRD	motorized rifle division
MRE	meals, ready to eat
MRP	motorized rifle platoon
MRR	motorized rifle regiment
MRS	motorized rifle squad
MSB	main support battalion
MSC	major subordinate command / Military Sealift Command
MSCS	manual short-range air defense control system
MSE	mobile subscriber equipment
msg	message
MSR	main supply route
MSRT	mobile subscriber radio terminals
MST	maintenance support team
MTC	movement to contact
MTMC	Military Traffic Management Command
MTOE	modification table of organization and equipment
MTP	mission training plan

**N**

NAAK	nerve agent antidote kit
NAI	named areas of interest
NAPP	nerve agent pretreatment pills
NATO	North Atlantic Treaty Organization
NBC	nuclear, biological, chemical
NBCO	nuclear, biological, chemical officer
NBCWRS	NBC warning and reporting system
NCA	national command authority
NCO	noncommissioned officer
NCOIC	noncommissioned officer in charge
NCS	net control station
NET	new equipment training
NGF	naval gunfire
NGLO	naval gunfire liaison officer
NGO	naval gunfire officer
NLT	not later than
NOD	night observation device
NUCWARN	nuclear warning
NVD	night-vision device

**O**

obj	objective
OBSTINTEL	obstacle intelligence
OCOKA	observation and fields of fire, cover and concealment, obstacles, key terrain, avenues of approach
OCONUS	outside continental United States
OH	observation helicopter
OI	operations and intelligence
OIC	officer in charge
OIR	other intelligence requirements
OMG	operational maneuver group
OOTW	operations other than war
OP	observation post
OPCON	operational control
OPFOR	opposing forces
OPLAN	operation plan
OPORD	operation order
OPP	offload preparation party
ops	operations
OPSEC	operations security
ord	ordnance
org	organization

ORP objective rally point  
OSP on-board ship party

## P

PA physician's assistant  
PAC Personnel and Administrative Center  
PADS position azimuth determining system  
PAO public affairs officer  
PAX passengers  
PCI precombat inspection  
PD point detonating  
PDS personnel daily summary  
PERINTREP periodic intelligence report  
pers personnel  
PEWS platoon early warning system  
PFC private first class  
phys physical  
Ph probability of hit  
Pi probability of incapacitation  
PIR priority intelligence requirements  
Pk probability of kill  
PL phase line  
PLL prescribed load list  
plt platoon  
PM provost marshal  
PMCS preventive maintenance checks and services  
POD point of debarkation  
POE point of embarkation  
POL petroleum, oils, and lubricants  
POMCUS prepositioning of materiel configured to unit sets  
pos position  
POSNAV position navigation  
PP passage point  
PRI TGT priority target  
PSA post support activity  
PSG platoon sergeant  
PSNCO personnel services noncommissioned officer  
PSS personnel service support  
PST pass time  
PSYOP psychological operations  
PUL preconfigured unit loads  
PW prisoner of war  
PZ pickup zone

## Q

QDMP	quick decision-making process
qtr	quarter
QSS	quick supply store

## R

RAAMS	remote antiarmor mine system
RAG	regimental artillery group
RAOC	rear area operations center
RAP	rocket assisted projectile
RATELO	radiotelephone operator
RATT	radio teletypewriter
RAU	radio access unit
recon	reconnaissance
REDCON	readiness condition
regt	regiment
RES	radiation exposure status
RETRANS	retransmit
RFA	restrictive fire area
RFL	restrictive fire line
RKV	random key variable
ROE	rules of engagement
ROM	refuel-on-the-move
ROZ	restricted operations zone
RP	release point
RPG	rocket-propelled grenade
R&S	reconnaissance and surveillance
RSL	recommended stockage lists
RSR	required supply rate
RSTA	reconnaissance surveillance target acquisition
RTD	return to duty
RTF	regeneration task force
RTO	radiotelephone operator

## S

S1	adjutant
S2	intelligence officer
S3	operations and training officer
S3-Air	assistant battalion S3 (air operations)
S4	supply officer
S5	civil affairs officer
SAAFR	standard-use Army aircraft flight routes
SAB	separate armor brigade

SAEDA	Subversion and Espionage Directed Against US Army and Deliberate Security Violations
SAB	separate armor brigade
SAFAD	small arms for air defense
SALT	supporting arms liaison team
SALT Air	supporting arms liaison team S3 (air operations)
SALUTE	size, activity, location, unit, time, and equipment
SAM	surface-to-air missile
SARSS-1(I)	Standard Army Retail Supply System-1 Interim
SCO	squadron commander
sct	scout
SEAD	suppression of enemy air defense
sec	section
SEE	small emplacement excavators
SEN	small extension node
SENSREP	sensitive items report
SFC	sergeant first class
SGM	sergeant major
sgt	sergeant
SHELREP	shell report
SHORAD	short-range air defense
SICPS	standard integrated command post system
SIF	selective identification feature
sig	signal
SIGINT	signals intelligence
SIGSEC	signals security
SINCGARS	single channel ground and airborne subsystem
sit	situation
SITMAP	situation map
SITREP	situation report
SJA	Staff Judge Advocate
SLAR	side looking airborne radar
SME	subject matter expert
SO	signal officer
SOF	special operations forces
SOI	signal operation instructions
SOP	standing operating procedure
SOSR	suppress, obscure, secure, and reduce
SP start point	
SPBS-R	standard property book system-redesign
SPOD	seaport of debarkation
SPOE	seaport of embarkation
SPOTREP	spot report

spt	support
sqdn	squadron
SR	supply route
SRIG	surveillance reconnaissance and intelligence group
SSG	staff sergeant
S&T	supply and transport
ST	special text
STACCS	standard theater Army command and control system
STAMIS	Standard Army Management Information System
STANAG	Standardization Agreement
STRATREP	status report
svc	service
SVRWXWARN	severe weather warning report

## T

TAA	tactical assembly area
TAACOM	Theater Army Air Defense Command
TACAIR	tactical air
TAC CP	tactical command post
TACCS	Tactical Army Combat Service Support Computer System
TACFIRE	tactical fire direction system
TACMS	tactical missile system
TACP	tactical air control party
TACSAT	tactical satellite
TACSSCS	Tactical Army Combat Service Support Computer System
TAI	target areas of interest
TALCE	tanker airlift control element
TAMMS	The Army Maintenance Management System
TAT	to accompany troops
TC	tank commander
TCF	tactical combat force
TCP	traffic control post
TD	tank division
TDIS	time-distance
TEWT	tactical exercise without troops
TF	task force
TGM	terminally guided munitions
tgt	target
THREATCON	threat condition
TIRS	terrain index reference system
TLP	troop-leading procedures
tm	team(s)
TMC	troop medical clinics



tns	trains
TOC	tactical operations center
TOE	table(s) of organization and equipment
TOT	time on target
TOW	tube-launched, optically tracked, wire-guided (missile)
TPFDD	time-phased force deployment data
TPFDL	time-phased force deployment logistics
TPN	tactical packet network
TR	tank regiment
TRADOC	United States Army Training and Doctrine Command
trans	transportation
trk	truck
trlr	trailer
trmt	treatment
TRP	target reference point
TSOP	tactical standing operating procedures
TTP	tactics, techniques, and procedures
TTU	transportation terminal unit
TV	television
TVA	target value analysis
typ	typist

## U

UAV	unmanned aerial vehicle
UBL	unit basic load
UH	utility helicopter
UHF	ultra high frequency
UMCP	unit maintenance collecting point
UMT	unit ministry team
USAARMS	United States Army Armor School
USAF	United States Air Force
USAMCCOM	United States Army Armament, Munitions, and Chemical Command
USAMMA US	Army medical materiel agency
USCINCTrans	United States Commander-in-Chief Transportation Command
USTRANSCOM	United States Transportation Command

## V

VFMED	variable format message entry device
VHF	very high frequency
V/STOL	vertical/short takeoff and landing

## W

WCS	weapons control status
WESS	weapons effect signature simulator
WFZ	weapons free zones

WIA	wounded in action
WO	warning order
WP	white phosphorus
wpns	weapons
WP-T	white phosphorous tracer
wrkr	wrecker
WSM	weapon system management
WSRO	weapon systems replacement operations
WWMCCS	worldwide military command and control system
WXFCST	weather forecast report

## X

XO	executive officer
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# FM 71-3

## The Armored and Mechanized Infantry Brigade

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